** Are Ungulate Species Variable in Their Habitat Selection in Northwest Montana?

Katherine Garrett*, University of Montana, Missoula
David Messmer, Montana Fish, Wildlife, and Parks, Missoula
Dustin Brewster, Montana Fish, Wildlife, and Parks, Missoula
Mahdieh Tourani, University of Montana, Missoula

*Indicates Presenter

**Indicates Student Presentation

Understanding animal movement can be important for monitoring design and management decision making. Ungulate movement in the landscape is often driven by the local environment.
Most, if not all, ungulate species select for food resources and safety, and their movement is facilitated by landscape structures. However, species do not necessarily respond to their environment in the same way. To quantify variability in species responses to their environment, we leveraged a multi-ungulate system in Northwest Montana. This area is heavily forested but heterogenous as areas of it are subjected to yearly wildfires, commercial logging, hunting, and dissected by roadways. We collared 13 elk, *Cervus canadensis*, 25 white-tailed deer, *Odocoileus virginianus*, and 25 mule deer, *O. hemionus* during 2024-2025. We analyzed GPS fixes (3-hour intervals) using step selection functions. We built single-species models, tested for the effect of habitat features, and compared ungulate habitat selection with the same spatial and temporal extent and resolutions. This comparative study sheds light on similarities, but also differences in ungulate habitat selection. Results may also inform design of camera-trap based monitoring protocols.