

## **The Montana Big Game Migration and Seasonal Range Mapping and Research Initiative**

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For the last 15 years, Montana Fish Wildlife and Parks and collaborators have been deploying GPS collars across the state to help address local and regional management and research objectives. The continuous capture and instrumentation efforts have resulted in large and ever-growing spatial data sets for elk, mule deer and pronghorn. For elk in particular, the aggregated datasets now include over 850 individuals sampled from over 20 populations and nearly 10 million GPS locations. Montana Fish, Wildlife and Parks recently prioritized a broad effort to delineate migration routes and seasonal ranges of elk, mule deer and pronghorn using rigorous methodologies that account for varied terrain, habitat, and big game migration behaviors across the state. This effort has been bolstered by Sectorial Order 3362, which mandated that Department of Interior bureaus work with state wildlife agencies to enhance and improve habitat quality of big game winter range and migration corridors. The broad mapping effort and associated new research will help fulfill local information needs as well as contribute towards regional coordinated mapping efforts across the western US. Spatial files and maps from the mapping effort will be made available to Fish, Wildlife and Parks staff and the public. Our talk will provide an overview of the aggregated data sets to be used in the mapping effort, initial data summaries of migratory behaviors and land ownership use, and the planned methods to delineate migratory corridors and seasonal ranges.