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# INITIATING GPS & VHF TELEMETRY STUDIES ON MOUNTAIN UNGULATES IN THE GREATER YELLOWSTONE AREA

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Telemetry studies on bighorn sheep (*Ovis canadensis*) and mountain goats (*Oreamnos americanus*) in the greater Yellowstone area (GYA) are relatively rare, especially in comparison to other large mammals. There is therefore a significant dearth of detailed information on mountain ungulate demographic and spatial ecology as well as competition dynamics between the non-native mountain goat and the native bighorn sheep. The Mountain Ungulate Research Initiative is seeking to gain this valuable management and conservation information by initiating GPS and VHF radio telemetry studies across the GYA. We have selected ten study sites that represent the varying ecological settings of this ecosystem with differences in climate, geology, herd size, disease history, land use and management, migratory and non-migratory herds, sympatric and allopatric herds, and high and low elevation ranges. In addition, we have developed a dual collar, multiple deployment strategy to efficiently maximize collection of ecological data and support long-term research goals. This includes the deployment of a GPS collar simultaneously with a VHF collar for each animal instrumented. After two years of fine spatial- and temporal-scale data collection the GPS collars will release for recovery while the VHF collars will remain on animals to obtain an additional five years of demographic data. The recovered GPS collars will then be refurbished and redeployed with new VHF collars on additional animals. The presentation will describe these telemetry studies and strategies, as well as report on the progress of current and planned telemetry study efforts.