

Spatial ecology and conservation of long-distance migrations of mule deer from Grand Teton National Park

\$7,500 granted to Grand Teton National Park Foundation

EXECUTIVE SUMMARY

In 2013, we initiated a pilot project to document the migration patterns of mule deer that summer in Grand Teton National Park. By the end of 2016, we had amassed a movement data set of more than 58,000 GPS points from 18 radio collared deer and recognized a need to increase capacity for managing, analyzing, and reporting on the large and expanding information base. To this end, in 2017 we requested \$7,500 from the Meg and Bert Raynes Wildlife Fund to support quantitative data analysis. With the Fund's assistance, we hired a talented wildlife technician and financed a portion of his seasonal salary. With the increased capacity, we completed preliminary analyses mapping and characterizing six previously undocumented migration corridors, created high priority data products for each corridor using the Brownian Bridge movement analysis, and collared 20 additional mule deer. In addition, funding from MBRWF helped catalyze several unanticipated benefits. We successfully leveraged the grant to secure additional funding totaling \$50,000, which enabled expansion of the project's scale and scope. The momentum gained from new funding sources and roll out of data products fostered the development of several new university and agency collaborations. Noteworthy among these and recognizing the high quality work of our technician is his acceptance into a university graduate program and where he will continue this work for his Master's research.



Mule deer crossing Moran Creek at the base of the Teton Range as they migrate south in the fall.