Kyle D. Kaskie

Montana Natural Heritage Program Biological
1515 East Sixth Avenue, P.O. Box 201800
Helena, MT 59620-1800
kkaskie@mt.gov

EDUCATION

South Dakota State University, Brookings, SD   May 2018
  Master of Science in Biological Sciences of Natural Resource Management

South Dakota State University, Brookings, SD   December 2012
  Bachelor of Science in Wildlife and Fisheries Sciences

Mid Plains Community College   May 2010
  A.A. degree, General Education

EXPERIENCE

Biological Data Scientist   May 2021 - Present
Montana Natural Heritage Program, Helena, MT

- Georeference/digitize hard copy tabular information on animal and plant observations, structured survey locations, range polygons, study site polygons, and habitat features.
- Centralize and ensure spatial and tabular data integrity for large datasets and the overall database by developing and modifying workflows.
- Create value added data products such as predicted habitat suitability models.
- Manage and improve data acquisition workflows with feedback from science staff through customized data gathering applications
- Assist with designing, developing, and managing SQL databases for biological information.

GIS Program Specialist   Jan 2019 – May 2021
South Dakota Game, Fish and Parks, Pierre, SD

- Develop and maintain GIS based inventory and habitat management databases.
- Coordinate GIS activities for administration, field staff, and stakeholders.
- Development of customized applications for management implications and data collection.
- Provide training for staff on the use and application of GIS based around the needs of the individuals.

Biological Crew Leader   May 2018 – Dec 2018
Field Coordinator – Western Minnesota Wind Energy Development Sites
Western EcoSystems Technology, Inc., Ivanhoe, MN

- Coordinate with natural resource agencies and regulators to report avian/bat species and species of concern.
- Consult with project managers and clients and provide daily, monthly, and quarterly progress reports.
- Provide quality assurance of collected data and communicate with Biometricians and Quality Control personnel.
- Provide training and direct supervision of multiple field technicians.
- Setup, supervise, and direct field surveying efforts.

Graduate Research Assistant   Jan. 2016 – May 2018
SDSU Natural Resource Management, Brookings, SD

- Appointed as a 49% time Graduate Research Assistantship in the Geospatial Sciences Center of Excellence.
- Developed and implemented a study design to aide large-scale juniper mapping efforts.
- Surveyed and modeled remotely sensed data and developed juniper mapping methods with remote sensing software, GIS applications, and machine learning algorithms.
- Prepared research findings for a thesis and peer-reviewed publications which support federal and state agencies with natural resource management.
- Communicated and collaborated with scientists, managers and students to map areas of a high concern or sensitive to native grassland loss.

GIS Research Assistant   May. 2016 – May 2018
SDSU Natural Resource Management, Brookings, SD

- Researched landscape and habitat characteristics associated with white-tailed deer fawn survival in the Midwest.
- Used GIS to collect, organize, and analyze data obtained from 8 field studies over a 15 year timeframe.
- Calculated landscape metrics for fawn and adult home ranges using Fragstats software from data derived through data prepared with GIS.
- Co-authored 2 peer-reviewed publications which assist agencies with for management applications.

GIS Research Assistant   Jan. 2017 – May 2018
SDSU Extension, Brookings, SD

- Quantified undisturbed (native) grasslands in South Dakota using geographic information systems.
- Developed and organized databases for geographic data at a county levels.
- Digitized landscape features by land use characteristics for large-scale analyzing efforts.

Field Biologist   Apr. 2015 – Dec. 2015
Nebraska Game and Parks Commission, Crawford, NE

- Carried out mountain lion and wildlife habitat research using specific research techniques.
- Used GIS to assist in synthesizing the wildlife demographics and population distributions of species with data collected from genetic surveys, camera trap surveys, trapping/radio-collaring, and characterizing critical habitat.
- Established landowner and federal agency relationships by communicating and clarifying project goals.
- Directed the day to day administration of field surveys and studies.

Wildlife Research Technician   Feb. 2013 – Oct. 2014
South Dakota Game, Fish and Parks, Custer, SD

- Carried out research on Rocky Mountain elk, bighorn sheep, mountain goats, bobcats, and wild turkeys with addition to characterizing habitat usage.
- Supervised and directed the work of seasonal and volunteering technicians.
- Coordinated with natural resource agencies with organized and developed field reports.
- Executed habitat and vegetation surveying, sampling and analyses with utilization of GIS to support mapping and sampling efforts.
- Performed aerial and ground surveys of multiple wildlife species including northern goshawk nest observations.
- Co-authored a peer-reviewed publication on habitat sampling techniques, which aide federal and state agencies on habitat characterization efforts.

Habitat Management Intern   May 2012 – Sept. 2012

South Dakota Game, Fish and Parks, Chamberlain, SD

- Provided technical assistance and developed, improved, and maintained habitat for wildlife.
- Conducted noxious weed and pest control.
- Executed crop, native grass and shelterbelt cultivation.
- Initiated timber management techniques.
- Maintained state-owned and managed properties with support from GIS software and GPS field applications.

Field/Lab Technician II   May 2004 – Sept. 2011

Tetra Tech, North Platte, NE

- Administered field and laboratory, environmental and construction material testing services.
- Conducted vegetation mapping and monitoring of rare plant and noxious weeds.
- Performed wetland delineation, permitting, mitigation design and monitoring.
- Proposal preparation.
- Constructed field and laboratory reports.

COMPUTER SKILLS

ESRI ArcGIS suite, ENVI, Database Management Systems, SQL, Python, Program R, Fragstats, Trimble, GPS software

TRAINING AND CERTIFICATIONS

- 48 Hours ESRI Training; ArcGIS   July 2017
- 40 Hour Basic Wetlands Delineation Certificate   July 2012
- 40 Hour Hazardous Waste Operations and Emergency Response Training   Aug. 2010
- Nebraska Department of Roads Earthwork Training & Certification Level I   May 2009

PUBLICATIONS

- **Kaskie, K. D.**, Wimberly, M. C., & Bauman, P. J. (2019). Rapid assessment of juniper distribution in prairie landscapes of the northern Great Plains. International Journal of Applied Earth Observation and Geoinformation, 83, 101946. **DOI:**10.1016/j.jag.2019.101946
- Michel, E. S., Jenks, J. A., **Kaskie, K. D.**, & Jensen, W. F. (2019). Habitat characteristics at capture locations of white-tailed deer fawns in the northern great plains. Northwestern Naturalist, 100(2), 118-125. **DOI:**10.1898/NWN-18-24
- **Kaskie, K. D.** (2018). Mapping and Risk Assessment of Juniper Encroachment Into a Prairie Landscape. openprairie.sdstate.edu
- Michel, E. S., Jenks, J. A., **Kaskie, K. D.**, Jensen, W. F. (2018). Understanding Habitat Needs of White-tailed Deer Fawns in the Northern Great Plains.
- Michel, E. S., Jenks, J. A., **Kaskie, K. D.**, Klaver, R. W., Jensen, W. F. (2018). Weather and landscape factors affect white-tailed deer neonate survival at ecologically important life stages in the Northern Great Plains. PloS one, 13(4), e0195247. **DOI:**10.1371/journal.pone.0195247
- Lehman, C. P., Gingery, T. M., **Kaskie, K. D.**, Uresk, D. W. (2017). Characterizing Bighorn Sheep Foraging Sites Using the Modified Robel Pole in the Southern Black Hills, South Dakota. Intermountain Journal of Sciences, 23(1-4). [PDF] montana.edu

ADDITIONAL RESEARCH

- Bauman, P., Blastick, J., Grewing, C., Carlson, B., Butler, T., Richardson, B., Smart, A., Wimberly, M, and **Kaskie, K**. "Alternative Methods for Determining Land Use History in South Dakota and Minnesota" Poster presented at Great Plains Grassland Summit, April 2018, Denver, CO, USA.

PROFESSIONAL RECOGNITION/AWARDS

- [Special Recognition Award](#) 2020 MAFWA - Midwest Association of Fish and Wildlife Agencies
- [Outstanding Contributor of the Year Award](#) 2020 WAFWA - Western Association of Fish and Wildlife Agencies
- [ESRI Case Study](#) 2020 ESRI - South Dakota Game, Fish, and Parks Boosts Participation in Outdoor Recreation
- Best Student Presentation 2018 - South Dakota Chapter of The Wildlife Society Annual Meeting

VOLUNTEER EXPERIENCE

Eagle Nest Monitoring, Missouri National Recreation River, Yankton, SD   November 2011
Mountain Pine Beetle Survey, South Dakota Department of Agriculture, Black Hills, SD   October 2011
Duck Banding, Ducks Unlimited, Goebel Ranch, SD   September 2010

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