Ellen D. Furness

Summary of Qualifications

- University of Denver, Full-Stack Web Development Certificate, 2022
  - Projects include, Bike station App using JavaScript Web API and REACT. https://github.com/bward3/spokes-people.git
  - Web API Weather App.
  - Portfolio website: https://efurness.github.io/ellen-s-react-portfolio/
- Biologist research experience
  - Working on projects involving surveying, mapping, and ecological monitoring.
- Master's Degree of Science, GIS, University of Denver, 2006
- ESRI ArcGIS suite
  - Graduate project mapping study of Three-toed woodpecker in old growth forests of the Colorado Rocky Mountains and repopulation after forest fires.

-- Professional Experience --

Biologist, National Park Service, Air Resources Division, 2010

- Compiling GIS maps, reports and documents for the Air Resources Division.
- Assisted Chief Biologist in compilation of air pollution research in National Parks.
- Assisted Webmaster in the design, maintenance, and conversion of the Air Resources Division websites to XHTML using Adobe Dreamweaver/ColdFusion.

GIS/Forestry Technician, Pikes Peak National Forest, 2002

- Used aerial photographs and stereography to interpret major vegetation and forest types for Pike National Forest watersheds, primarily Turkey Creek watershed.
- Digitized heterogeneous vegetation polygons onto Digital Ortho Quads (DOQ's) using GIS Arc Info/Arc Edit Tools. Set up Arc Info coverages – watershed/riparian/vegetation for final maps.
- Collected Region 2 CSE Common Stand Exams and other surveys to verify digitized vegetation maps.

BAER Team Technical Specialist/Project Leader, 2001

- Burned Area Emergency Rehabilitation (BAER) projects in watershed assessment of burned areas, aerial reconnaissance by helicopter, topographic mapping of treatment sites and hydrophobicity soil testing. Received certificate for BAER work called Above and Beyond.
- As Project Leader and BAER Team Trainee, led technicians in conducting rehabilitation treatment plans that contributed to Final Burned Area Rehabilitation Reports.

-- Education --

M.S. Masters of Science in GIS, University of Denver, Geography, 2006

- Graduate Teaching Assistantship and graduate projects in Geographic Information Systems.

M.S Masters of Science, Population Biology, University of Colorado, 1995

- Graduate teaching assistantship.
  Master's Thesis Paper: *Conservation of Psittacine Parrot Species in a Park System.*
- Independent research of Northern Red-shafted Flickers (*Colaptes auratus*) including monitoring of nesting pairs for daily activity levels, foraging behavior and use of feeding sites.
- Research Assistant at La Selva Research Station, Costa Rica: Group project and research of individual versus group foraging for the *Paraponia* ant.

B.A. Biology, Colorado College, 1989

- Behavioral Ecology of Mammals. Wilderness Field Station in Ely, Minnesota (BWCA).
- Worked at the National Institutes of Health genetic research project

--Additional Experience--

Volunteer, Boulder Flood Relief, 2014

Website Contractor for Geology Department, Colorado College, 2009

- Responsible for the design and maintenance of Geology Department and Professors' websites and Integrated Solid Earth Sciences (ISeS) Antarctica website.

Volunteer for Conservation Treaty Support Fund for CITES
- Convention on International Trade of Endangered Species, Traffic/World Wildlife Fund,
- Production Assistant for Kamchatka Wildlife Documentary