#### Ellen D. Furness

# Summary of Qualifications

- Current: University of Denver, Coding Bootcamp Web Development
  - o Projects include Web API weather dashboard and Calendar App
- Biologist research experience
  - Working on projects involving surveying, mapping, and monitoring of habitat and natural resources.
- Masters Degree of Science, GIS, Geography Department at the University of Denver.
- ArcGIS
  - o Continued education of GIS courses at University of Colorado, Boulder.
  - o Graduate project mapping study of Three-toed woodpecker in old growth forests of the Colorado Rocky Mountains, repopulation after forest fires.
- Goal is to advance in conservation, biological research, GIS and web development.

### -- Professional Experience --

### Biologist, National Park Service, Air Resources Division 2005-2009

- 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 2000-2001

- 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, Colorado, various posts, 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.
- As Project Leader and BAER Team Trainee, led technicians in conducting rehabilitation treatment plans that contributed to Final Burned Area Rehabilitation Reports.

# --Additional Experience--

Volunteer, Boulder Flood Relief, website/blog and office work 2013-2014

Website Contractor for Geology Department, Colorado College 2003-2007

• 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, 1990-1995
- Production Assistant for Kamchatka Wildlife Documentary 1998-2000

### -- Education --

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

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

# M.S Masters of Science, Population Biology at University of Colorado, Boulder, 1994

- 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 (summer 1993): Group project and research of individual versus group foraging for the *Paraponia* ant.

# B.A. Biology, Colorado College, 1989

- Behavioral Ecology of Mammals, 1987. Wilderness Field Station in Ely, Minnesota (BWCA).
- Worked at the National Institutes of Health genetic research project