

---

## Elizabeth C. Long

---

Dept. of Natural Sciences  
Embry-Riddle Aeronautical University  
3700 Willow Creek Rd.  
Prescott, AZ 86301

Telephone: (928) 777-4748  
Email: Elizabeth.Long@erau.edu  
<http://mercury.pr.erau.edu/~longe3/>

**Assistant Professor of Biology** Embry-Riddle University Prescott, Arizona. Department of Natural Sciences 2012-present

**Forensic Biology Program Chair** Embry-Riddle University Prescott, Arizona. 2013- Present

### *Education*

**Ph.D.** Ecology, University of California Davis. 2013

**M. S.** , Biology, The College of William & Mary, Williamsburg, Virginia. 2009.

**B. A.** , Biology, University of Richmond, Virginia. 1995

### *Professional and Teaching Experience*

**Program Chair** Forensic Biology Bachelor's Degree Program, Embry-Riddle University Prescott 2013- present

**Assistant Professor** Embry-Riddle University Prescott 2012-present

- *Biology Concepts*. Lecture and Lab survey of general principles of biology
- *Human Genetics*
- *Environmental Science*
- *Natural History and Ecology of the Southwest*
- *Ecology*

**Head Teaching Assistant**, University of California Davis. Multiple quarters 2008.

- *Introductory Biology*. Teaching and administrative duties for introductory plant biology course.

**Teaching Assistant**, University of California Davis. Multiple quarters 2007-2012

- *Genes and Gene Expression*
- *Introductory Biology: Biodiversity and the Tree of Life* Biology majors core series
- *Introductory Biology (Plant Biology)*
- *Sociology and Culture of Cycling and Le Tour*

**Teaching Assistant**, The College of William & Mary. Multiple semesters 2004-2005

- *Principles of Biology* Biology majors core series
- *Zoology* Biology majors core series
- *Biological, Philosophical, and Religious Perspectives on Evolution*

**Graduate Student Researcher** University of California Davis. 2007-2012

- Genetics, habitat and behavioral investigation of mimetic butterfly species
- Phylogenetics and population genetics of Melitaeine butterflies
- Inventory of the Lepidoptera of a biogeographically isolated mountain range
- Transect surveys of long-term study of butterfly habitat, abundance, and phenology

**Graduate Research Assistant** UC Davis Veterinary Genetics 2006- 2007

- Population Genetics of the Sacramento Valley Red Fox
- Population Genetic Analysis and statewide DNA analysis of an introduced pest species

**Graduate Student Researcher** The College of William and Mary 2003-2006

- Ecology of nesting behavior in a Threatened raptor (*Falco peregrinus*)
- Conservation conflict between a reintroduced species and its Threatened prey guild

**Genomics Biologist**, Lancaster Labs (VA) 2003- 2006

- Genetic investigations diverse plant species (Microsatellite Genotyping, RT-PCR, bacterial cloning, and work with transgenics)

**Laboratory Specialist**, Comparative Genomics Lab, Department of Animal and Poultry Science, Virginia Polytechnic Institute and State University, 2001-2003.

- Genetic differences in *Homo sapiens* at a selective sweep locus
- Genetic differences in avian species (*Gallus gallus*, *Meleagris gallopavo*, and *Melopsittacus undulates*) using sequencing analysis, SNP genotyping, Msat genotyping, RFLP, EST, and RAPDs

### ***Publications***

- M. R. Whitaker and **Long, E. C.** *in press* Butterfly species of the California Sutter Buttes. *Journal of Research on the Lepidoptera*
- **Long, E. C.**, T. P. Hahn, and A. M. Shapiro *in review* Variation in Phenotype and Palatability in a Female-limited Polymorphic Mimicry System. *Ecological Entomology*
- **Long, E. C.** and R. C. Thomson *in prep* A Time-calibrated Phylogeny of the Butterfly Tribe Melitaeini using nuclear and mitochondrial genetic markers. *Molecular Phylogenetics and Evolution*
- Smith, E. J., Geng, T.Y., **Long, E. C.**, Pierson, F. W., Sponenberg, P. C., Larson, C., and R. Gogal. 2005 Molecular Analysis of the Relatedness of Five Domestic Turkey Strains. *Biochemical Genetics* **43** (35-47)
- Watts, B. D., Padgett, S. M., M. A. Byrd, and **E. C. Long**. 2005. Virginia Peregrine Falcon monitoring and management program: Year 2005 report. Center for Conservation Biology Technical Report Series, CCBTR-05-09. College of William and Mary, Williamsburg, VA. 12 pp
- Watts, B. D., Padgett, S. M., M. A. Byrd, and **E. C. Long**. 2004. Virginia Peregrine Falcon monitoring and management program: Year 2004 report. Center for Conservation Biology Technical Report Series, CCBTR-04-07. College of William and Mary, Williamsburg, VA. 12 pp.
- **Long, Elizabeth** 2005 “Peregrine Falcons Return” *Nature’s Art Wildlife Journal* Volume 3, Issue 3
- **Long, Elizabeth** 2005 “Peregrine Falcons- A Conservation Success Story” *Coastal Flightlines Fall Issue*. Coastal Virginia Wildlife Observatory

### ***Presentations***

- **Long, E. C.** 2013 The Evolution of Mimicry in Checkerspot Butterflies. The Wildlife Society Prescott Chapter
- **Long, E. C.**, Whitaker, M. R., and A. M. Shapiro 2011. Butterfly abundance and diversity, or lack thereof, in the world's smallest mountain range: California's Sutter Buttes. Poster presentation, Entomological Society of America Annual Meeting
- **Long, E. C.** and A. M. Shapiro 2010. Population Genetics of a Female-Limited Polymorphic Mimic, *Chlosyne palla*. Oral presentation, Society for the Study of Evolution Annual Meeting
- **Long, E.C.**, Byrd, M.A., and B. D. Watts 2007. Impact of an Introduced Predator on Prey Species of Conservation Concern. Oral presentation, Raptor Research Foundation Annual Meeting
- **Long, E. C.**, Padgett, S. M., Byrd, M. A., and B. D. Watts 2006 Prey Selection of Peregrine Falcons in the Breeding Season in Virginia. Poster presentation, North American Ornithological Conference IV
- **Long, E. C.**, Padgett, S. M., Byrd, M. A., and B. D. Watts 2005 Prey Selection and

- Breeding Success of Reintroduced Peregrine Falcons in Virginia. Invited Speaker, Northern Neck of Virginia Audubon Society Annual Meeting
- **Long, E. C.**, Padgett, S. M., Byrd, M. A., and B. D. Watts 2005 Prey Selection and Breeding Success of Reintroduced Peregrine Falcons in Virginia. Invited Speaker, PEO Sisterhood Williamsburg Virginia Chapter Meeting
  - **Long, E. C.**, Padgett, S. M., Byrd, M. A., and B. D. Watts 2004 Prey Selection and Breeding Success of Reintroduced Peregrine Falcons in Virginia. Invited Speaker, Coastal Virginia Wildlife Observatory Annual Meeting
  - Smith, E. J., **Long, E. C.**, and P. Sponenberg 2002 Characterization of Genetic Relatedness of Five Strains of Turkey. (presenting author) Oral presentation, Poultry Science Association Annual Meeting

#### ***Research Grants***

- **Embry-Riddle Aeronautical University Internal Research Grant** 2013
- **Wolf Aviation Fund** (with Joe Yeol) 2012
- **National Geographic Young Explorer's Grant** 2009 (with Melissa Whitaker)
- **Center for Population Biology Research Award** 2009, 2011 University of California Davis
- **Graduate Student Research Award** 2006 University of California Davis Veterinary Genetics Laboratory
- **Joy Archer Memorial Fellowship Award** 2002 Coastal Virginia Wildlife Observatory.
- **Bill Sheehan Memorial Research Award** 2002 Williamsburg Bird Club

#### ***Outreach***

- **Scientific Advisory Panel**, eButterfly.ca
- **Trip Leader**, Highlands Center for Natural History, Prescott, AZ
- **Presenter and Trip Leader**, Mono Lake Bird Chautauqua Lee Vining, CA
- **Curator**, Encyclopedia of Life eol.org
- **Organizer and Discussion Facilitator**, Community Book Project, Yolo County (CA)
- **Hawk Bander**, Golden Gate Raptor Observatory (CA)

#### ***Undergraduate Mentoring***

- Meredith Hainsworth, Embry-Riddle Aeronautical University 2013-present. Chemical Ecology of *Limenitis* butterflies.
- Alicia Woelffer, University of California Davis, September 2009- 2012. Genetics of Mitochondrial Haplotype Variation in California Populations of *Euphydryas chalcedona*
- Cory Fernandes, University of California Davis, September 2009- 2012. Palatability and Color Polymorphism in the Butterfly Tribe Melitaeini (Lepidoptera).
- Brian Noh, University of California Davis, September 2008- December 2009. Genetics, Population Abundance, and Phenotypic Variation in *Chlosyne palla*.

#### ***Professional Memberships***

- The Society for the Study of Evolution
- Entomological Society of America
- Lepidopterist Society
- The Wildlife Society (National, State, and Local)