

**JEFFREY STEWART HEILVEIL**

Biology Department, State University of New York College at Oneonta, 108 Ravine Parkway, Oneonta, NY 13820, (607) 436-3162; heilvejs@oneonta.edu

**EDUCATION**

Ph.D. (2004) Entomology, University of Illinois, Urbana-Champaign, IL

M.Sc. (1999) Entomology, University of Illinois, Urbana-Champaign, IL

B.Sc. (1997) Resource Ecology Management, University of Michigan, Ann Arbor, MI

**AREAS OF SPECIALIZATION**

Genetics, Population Genetics, Phylogeography, Entomology, Ecology, Population Ecology, Aquatic Ecology

**PROFESSIONAL EXPERIENCE**

Assistant Professor (9/07 – present), Biology Department, State University of New York College at Oneonta, Oneonta, NY

Assistant Professor (8/06 – 5/07), Department of Natural Sciences, Fayetteville State University, Fayetteville, NC

Post-Doctoral Researcher (1/05 – 8/06), Dr. Craig Stockwell, mentor, Department of Biological Sciences, North Dakota State University, Fargo, ND

Research Assistant (09/02 – 12/04), Dr. Stewart Berlocher, advisor, Department of Entomology, University of Illinois, Urbana-Champaign, IL

Academic Advisor (2000 – 2001, 2003 – 2004), School of Life Sciences, University of Illinois, Urbana-Champaign, IL

Laboratory and Field Technician (10/95 – 08/97), Dr. Michael Wiley, advisor, School of Natural Resources and Environment, University of Michigan, Ann Arbor, MI

**TEACHING EXPERIENCE - LECTURER**

Spring 2008: Special Topics: Genetics of Natural Populations (graduate-level) (Biol 694), Biology Dept., State University of New York College at Oneonta

Spring 2008: Special Topics: Population Genetics (Biol 394), Biology Department, State University of New York College at Oneonta

2007(F), 2008(S): General Genetics (Biol 212), Biology Department, SUNY College at Oneonta

Spring 2007: Special Problems: Stream Ecology (Bio 430-02), Department of Natural Sciences, Fayetteville State University

Spring 2007: Evolution (graduate-level) (Bio 660), Department of Natural Sciences, Fayetteville State University

Spring 2007: Comprehensive Physical Science (NSci 110), Department of Natural Sciences, Fayetteville State University

2006(F), 2007 (S): Ecology and Evolution (Bio 350), Department of Natural Sciences, Fayetteville State University

Fall 2006: General Entomology (graduate-level) (Zool 570), Department of Natural Sciences, Fayetteville State University

Fall 2006: Introductory Biology (Bio 150), Department of Natural Sciences, Fayetteville State University

Fall 2005: Writing for Biological Sciences (graduate seminar) (Bio 793), Department of Biological Sciences, North Dakota State University

**TEACHING EXPERIENCE – GUEST LECTURER AND WORKSHOPS**

- 01/08: “DNA Forensics: Using genetic data to solve crimes”, Workshop, Otsego County Police Academy, Oneonta, NY
- 01/05: “Applications of molecular genetics to wildlife biology”, Wildlife and Fisheries Management Techniques (ZOO 477/677), North Dakota State University
- 09/04, 10/04: “From organism to microsatellite markers in less than a week”, Workshop, University of Illinois
- 03/03: “An introduction to stream ecology”, Population Biology (Honors) (Biol 252), University of Illinois

**TEACHING EXPERIENCE – GRADUATE ASSISTANT**

- Spring 2002, 2003: Population Biology (Honors) (Biol 252), Univ. of Illinois
- Fall 2002: Introduction to Integrative Biology (IB 150), Univ. of Illinois
- Fall 1998, 1999, 2000, 2001: Animal Biology (Biol 104), Univ. of Illinois
- Spring 1998, 1999, 2001: Evolution and Genetics (Biol 120), Univ. of Illinois
- Spring 2000: Insect Pathology (Entom 320), Univ. of Illinois
- 12/99: Insect Pathology Short Course for Central America and Mexico, Pan American School of Agriculture

**REFEREED PUBLICATIONS**

- Heilveil JS** and Berlocher SH (2006) Phylogeography of postglacial range expansion in *Nigronia serricornis* Say (Megaloptera: Corydalidae). *Molecular Ecology*, **15**, 1627–1641.
- Heilveil JS**, Kohler SL, and Solter LF (2001) Studies on the Life Cycle and Transmission of *Cougourdella* sp., a Microsporidian Parasite of *Glossosoma nigrior* (Trichoptera: Glossosomatidae). *Great Lakes Entomologist*, **34**, 9-15.
- Heilveil JS** and Stockwell CA. Management implications of genetic versus ecological population replication for a threatened species: a case study of *Cyprinodon tularosa* (Miller and Echelle) *In prep for Conservation Genetics*
- Chen Y, **Heilveil JS**, and Stockwell CA. Adaptive genetic variation of Mhc Class II  $\beta$ , and management implications for the White Sands pupfish, *Cyprinodon tularosa* (Miller and Echelle) *In prep for Conservation Genetics*
- Stockwell CA and **Heilveil JS**. Population dynamics and genetic variance for recently introduced populations of White Sands pupfish. *in prep for Conservation Genetics*.
- Tackett A, **Heilveil JS**, and Stockwell CA. Genetic Distribution and Diversity of *Etheostoma nigrum* (Rafinesque) in the Upper Midwest. *In prep for North American Journal of Fisheries Management*.
- Heilveil JS**. Flight and mating habits of *Nigronia serricornis* (Say) (Megaloptera: Corydalidae): implications for dispersal. *in prep for Journal of the North American Benthological Society*.

**EXTERNAL TALKS**

- 2007 Stockwell CA, **Heilveil JS**, Chen Y. Genetic tools for evaluating population history and fragmentation in the White Sands pupfish. Devil’s Hole pupfish genetic panel.
- 2007 Chen Y, **Heilveil JS**, Stockwell CA. Adaptive Divergence of MHC Class II $\beta$  in the White Sands Pupfish. 87<sup>th</sup> annual meeting of the American Society of Ichthyologists and Herpetologists
- 2006 **Heilveil JS**, Stockwell CA. The effects of historic translocations and habitat fragmentation

on the genetic structure of a protected fish species, the White Sands pupfish. 20<sup>th</sup> annual meeting of the Society for Conservation Biology

2006 Tackett AG, **Heilveil JS**, Stockwell CA. Genetic distribution and diversity of *Etheostoma nigrum* (Rafinesque) in the upper Midwest. 54<sup>th</sup> annual meeting of the North American Benthological Society.

2005 **Heilveil JS**. The relevance and applicability of phylogeographic analyses to conservation and restoration efforts. 53<sup>rd</sup> annual meeting of the North American Benthological Society

2004 **Heilveil JS**. Post glacial range expansion in *Nigronia serricornis* (Say) (Megaloptera: Corydalidae). 52<sup>nd</sup> annual meeting of the North American Benthological Society

2003 **Heilveil JS**. Genetic population structuring in *Nigronia serricornis* (Say) (Megaloptera: Corydalidae): anthropogenic or natural influence? 51<sup>st</sup> annual meeting of the North American Benthological Society

#### **INTERNAL TALKS**

2004 **Heilveil, JS**. “As the ices go”: Dispersal and postglacial range expansion in *Nigronia serricornis* (Say) (Megaloptera: Corydalidae). Exit Seminar. Department of Entomology, Univ. of Illinois

2004 **Heilveil, JS**. Post-glacial range expansion in *Nigronia serricornis* (Megaloptera: Corydalidae). 6th Annual Graduate Student Symposium, sponsored by the Graduate Students in Ecology and Evolutionary Biology, Univ. of Illinois

2004 **Heilveil, JS**. To the Great White North: Postglacial Range Expansion in *Nigronia serricornis* (Megaloptera: Corydalidae). Ecolunch Talk for the Program in Ecology and Evolutionary Biology, Univ. of Illinois

#### **POSTERS**

2007 Tackett AG, **Heilveil JS**, Stockwell CA. Population genetics of a native fish species *Etheostoma nigrum* (Rafinesque) in three major upper Midwest river basins with anthropogenic alterations. International Summit on Evolutionary Change in Human-altered Environments, University of California, Los Angeles

#### **GRANTS AND FELLOWSHIPS PENDING**

2008

DeWalt RE, Cao Y, **Heilveil JS**, Grubbs S.

Project Title: Stoneflies in the Middle Midwest, Deviation from Historical Expectations, Contemporary Risks, and Phylogeography of a Rapidly Changing Fauna  
Submitted to: NSF DEB Systematic Biology and Biodiversity Inventories  
Amount Requested: \$791,338.00

#### **GRANTS AND FELLOWSHIPS AWARDED**

##### **INTERNAL GRANTS**

2008

**Heilveil JS**, State University of New York College at Oneonta.

Project Title: Understanding Phylogenetics Through Enhanced Technology Tools  
Funded by: TLTC Faculty Fellowship, SUNY College at Oneonta  
Amount funded: \$3,250

**Heilveil JS**, State University of New York College at Oneonta

Project Title: Fine-scale Phylogeographic Analysis of Two Aquatic Indicator Species in New York

Funded by: Faculty Research Grant, State University of New York College at Oneonta  
Amount funded: \$2,500

Chabot E (undergraduate student) and **Heilveil JS** (faculty sponsor), State University of New York College at Oneonta.

Project Title: Reintroduction of *Acroneuria frisoni* (Stark and Brown) (Plecoptera: Perlidae) to the Vermillion River, IL: a phylogeographic approach

Funded by: Student Initiated Grant through the State University of New York Oneonta Faculty Senate Committee on Research  
Amount Funded: \$1,000.00

Vokral J (undergraduate student) and **Heilveil JS** (faculty sponsor), State University of New York College at Oneonta.

Project Title: Chromosome Distribution and Sex-Biased Gene Flow in *Nigronia serricornis* (Say)

Funded by: Student Initiated Grant through the State University of New York Oneonta Faculty Senate Committee on Research  
Amount Funded: \$1,000.00

2007

Heilveil JS, State University of New York College at Oneonta

Funded by: Library Special Projects Grant, State University of New York College at Oneonta

Amount funded: \$934.15

2006

Heilveil JS, North Dakota State University

Funded by: President's Development Grant, North Dakota State University

Amount funded: \$1,000

2005

Heilveil JS, North Dakota State University

Funded by: President's Development Grant, North Dakota State University

Amount funded: \$1,000

2004

Heilveil JS, University of Illinois, Urbana – Champaign

Project Title: Phylogeography and Mating Habits of *Nigronia serricornis* (Say)

Funded by: School of Integrated Biology Enhancement Fund, University of Illinois

Amount funded: \$500

Heilveil JS, University of Illinois, Urbana – Champaign

Project Title: Phylogeography and Mating Habits of *Nigronia serricornis* (Say)

Funded by: Francis M. and Harlie M. Clark Research Support Grant, School of Integrated Biology, University of Illinois

Amount funded: \$1,000

Heilveil JS, University of Illinois, Urbana – Champaign

Funded by: Graduate College Conference Travel Grant, Graduate College, University of Illinois

Amount funded: \$225

2003

Heilveil JS, University of Illinois, Urbana – Champaign  
Funded by: Graduate College Conference Travel Grant, Graduate College, University of Illinois

Amount funded: \$150

Heilveil JS, University of Illinois, Urbana – Champaign  
Project Title: Phylogeography and Mating Habits of *Nigronia serricornis* (Say)  
Funded by: On-Campus Dissertation Research Grant, University of Illinois

Amount funded: \$150

2002

Heilveil JS, University of Illinois, Urbana – Champaign  
Project Title: Phylogeography and Mating Habits of *Nigronia serricornis* (Say)  
Funded by: On-Campus Dissertation Research Grant, University of Illinois

Amount funded: \$250

Heilveil JS, University of Illinois, Urbana – Champaign  
Project Title: Phylogeography and Mating Habits of *Nigronia serricornis* (Say)  
Funded by: Francis M. and Harlie M. Clark Research Support Grant, School of Integrated Biology, University of Illinois

Amount funded: \$1,000

2001

Heilveil JS, University of Illinois, Urbana – Champaign  
Project Title: Population Genetics of *Nigronia serricornis* (Say)  
Funded by: Francis M. and Harlie M. Clark Research Support Grant, School of Integrated Biology, University of Illinois

Amount funded: \$1,000

2000

Heilveil JS, University of Illinois, Urbana – Champaign  
Project Title: Population Genetics of *Nigronia serricornis* (Say)  
Funded by: Francis M. and Harlie M. Clark Research Support Grant, School of Integrated Biology, University of Illinois

Amount funded: \$1,000

1999

Heilveil JS, University of Illinois, Urbana – Champaign  
Funded by: Travel support for Insect Pathology Short Course, Department of Entomology, University of Illinois

Amount funded: \$200

1997

Heilveil JS, University of Illinois, Urbana – Champaign  
Funded by: Departmental Fellowship, Department of Entomology, University of Illinois

Amount funded: \$12000

### **EXTERNAL GRANTS**

2004

Heilveil JS, University of Illinois, Urbana – Champaign  
Project Title: Phylogeography of *Nigronia serricornis* (Say)  
Funded by: Illinois State Academy of Sciences Research Grant, Illinois State Academy of

Sciences

Amount funded: \$350

2002

Heilveil JS, University of Illinois, Urbana – Champaign

Project Title: Phylogeography of *Nigronia serricornis* (Say)

Funded by: Student Research Grant, North American Benthological Society Endowment,  
Society for the North American Benthological Society

Amount funded: \$500

### **AWARDS**

Spring 2002 Incomplete List of Teacher's Ranked Excellent by Their Students. University of Illinois. BIOL 252\*

Fall 2002 Incomplete List of Teacher's Ranked Excellent by Their Students. University of Illinois. IB 150\*

2001 LAS Teacher Hall of Fame. Univ. of Illinois. 2001

Spring 2001 Incomplete List of Teacher's Ranked Excellent by Their Students. University of Illinois. BIOL 120\*

Fall 2001 Incomplete List of Teacher's Ranked Excellent by Their Students. University of Illinois. BIOL 104 \*

Fall 1999 Incomplete List of Teacher's Ranked Excellent by Their Students. University of Illinois. BIOL 104 \*

\* This award is based on voluntarily administered Instructor and Course Evaluation (ICES) questionnaire forms maintained by the Division of Measurement and Evaluation, Center for Teaching Excellence. Instructors and teaching assistants receiving ratings in the top 30% are included on the list. Because evaluation is voluntary on the part of the instructor, DME has adopted the title "An Incomplete List of Teachers Ranked as Excellent by Their Students."

### **STUDENTS ADVISED**

Chabot E. (2008) "Reintroduction of *Acroneturia frisoni* (Stark and Brown) (Plecoptera: Perlidae) to the Vermillion River, IL: a phylogeographic approach"

Daukontas J. (2008) "Mapping gene flow: fine-scale phylogeographic structure of *Nigronia serricornis* (Say) in New York"

Vokral J. (2008) "Chromosome Distribution and Sex-Biased Gene Flow in *Nigronia serricornis* (Say)"

### **PROFESSIONAL MEMBERSHIPS**

North American Benthological Society

Society for Conservation Biology

### **PROFESSIONAL SERVICE**

2006 – present Reviewer, *Molecular Ecology*

2005 – present Reviewer, *Conservation Genetics*

2003 – present Reviewer, *Journal of the North American Benthological Society*

2004 Outreach coordinator, Entomology Graduate Student Association, Univ. of Illinois

- 1999 – 2004 Insect Fear Film Festival, Department of Entomology, Univ. of Illinois
- 2000 College of Agriculture, Consumer and Environmental Science Open House, Univ. of Illinois
- 1999 Insect Expo, Illinois Natural History Survey / Univ. of Illinois