

# Alan T. Hitch, Ph. D. Candidate

Auburn University • School of Forestry and Wildlife Sciences

SFWS Building • Auburn, AL 36849

334-444-4353 • hitchat@auburn.edu

## EDUCATION

---

### Auburn University, Auburn, AL

December 2009

### Doctor of Philosophy, Forestry and Wildlife Sciences

GPA 4.0 • Dissertation: Modelling avian habitat relationships and productivity in the Cumberland Plateau, AL

### University of Louisiana at Lafayette, Lafayette, LA

December 2008

### Master of Science, Biology

GPA 3.5 • Thesis: *Interactions of salinity, marsh fragmentation and submerged aquatic vegetation on resident nekton assemblages of coastal marsh ponds.*

### University of California at Davis, Davis, CA

May 2002

### Bachelor of Science, Wildlife, Fish and Conservation Biology

GPA 2.4

## RESEARCH EXPERIENCE

---

### Research Assistant, Auburn University, J. Barry Grand, Advisor, 2005-2009

- Determining the role of spatial scale in habitat relationship modelling.
- Analysis of sources of heterogeneity in detection variation in repeated point count surveys
- Estimating passerine productivity from repeated visits using a stage based model
- Utilization of game cameras to estimate turkey population size and occupancy
- Evaluating the habitat relationships of passerines in the Copper River Delta, AK.

### Research Assistant, Univ. of Louisiana at Lafayette, Paul L. Leberg, Advisor, 2002 - 2009

- Examining the effects of marsh fragmentation on nekton populations.
- Testing the role of fragmentation on gene flow in nekton populations.
- Evaluating survey techniques for waterbird colonies in Louisiana.

### Undergraduate Researcher, USGS Dixon Research Center, Dixon CA, M. Saiki, Advisor, 2001

## TEACHING EXPERIENCE

---

### Analysis of Wildlife Populations, Auburn University, Fall 2007

Instructor

- Prepared and presented selected lectures in classroom portion of the course.
- Coordinated development and teaching of laboratory component.

### Ecotoxicology, Auburn University, Spring 2008, 2009

Instructor

- Prepared and presented selected lectures in classroom portion of the course.

### Ornithology, Auburn University, Spring 2008

# Alan T. Hitch, Ph. D. Candidate

Auburn University • School of Forestry and Wildlife Sciences

SFWS Building • Auburn, AL 36849

334-444-4353 • hitchat@auburn.edu

## Teaching Assistant

- Prepared and presented selected lectures in classroom portion of the course.

## **Mammalogy**, University of California at Davis, **Spring 2002**

### Teaching Assistant

- Instructor for laboratory and field components of the course.
- Coordinated and assisted on weekend field excursions throughout northern California.

## **Ichthyology**, University of California at Davis, **Fall 2001**

### Teaching Assistant

- Instructor for laboratory and field components of the course.
- Coordinated and assisted on weekend field excursions throughout northern California.

## **GRANTS AND FELLOWSHIPS**

---

Alabama State Wildlife Grants; Estimating passerine productivity: an analysis of habitat quality in the Cumberland Plateau, AL: PIs: AT Hitch, Grand JB; Duration: 2007-2008; \$ 30,000

Auburn University, General Fees and Expenditures. For the development of an ornithological teaching collection for the School of Forestry and Wildlife Sciences. Duration 2006-2007; PI: AT Hitch; Amount: \$4,000

## **FIELD EXPERIENCE AND ADDITIONAL QUALIFICATIONS**

---

Mentored several Auburn University graduate students in museum specimen preparation 2006-Present

Regular collecting expeditions to southwest USA, California, Texas and Chile 2002 - 2008

Publication Reviewer: *Arctic, Conservation Biology*.

## **PUBLICATIONS**

---

Purcell KM, **Hitch AT**, Klerks PL, Leberg PL (2008) Adaptation as a potential response to sea-level rise: a genetic basis for salinity tolerance in populations of a coastal marsh fish. *Evolutionary Applications* 1:155-160.

Kelt DA, Engilis Jr. A, Torres IE, **Hitch AT** (2008) Ecologically significant range extension for the Chilean tree mouse. *Mastozoologia Neotropical*, 15: 125-128.

**Hitch AT**, Leberg PL (2007) Breeding distributions of North American bird species moving north as a result of climate change. *Conservation Biology* 21:534-539.

## **MANUSCRIPTS IN REVIEW/PREPARATION**

---

**Hitch AT**, Purcell KM, Martin SB, Klerks PL, Leberg PL (In Review) Interactions of salinity, marsh fragmentation and submerged aquatic vegetation on resident nekton assemblages of coastal marsh ponds. (Estuaries)

Martin SB, **Hitch AT**, Purcell KM, Klerks PL, Leberg PL (In press) Life history along a salinity gradient in a changing climate.(Aquatic Biology)

# Alan T. Hitch, Ph. D. Candidate

*Auburn University • School of Forestry and Wildlife Sciences*

*SFWS Building • Auburn, AL 36849*

*334-444-4353 • [hitchat@auburn.edu](mailto:hitchat@auburn.edu)*

**Hitch AT**, Purcell KM, Martin SB, Klerks PL, Leberg PL (In prep.) Effects of marsh edge and spatial scale on nekton densities in coastal marshes of Louisiana.

**Hitch AT**, Grand JB (In prep.) Sources of variation in avian habitat relationship models in detection and the effect on estimates of occupancy.

## **PUBLISHED ABSTRACTS AND PRESENTATIONS**

---

**Hitch AT**, Grand JB (2008) Are landcover types sufficient for modeling avian habitat relationships? The role of landscape and forest structure variables. American Ornithologists Union Annual Meeting 2008, Portland, OR, USA.

**Hitch AT**, Leberg PL (2008) Interactions of Salinity, Marsh Fragmentation and Submerged Aquatic Vegetation on Resident Marsh Nekton. Society of Conservation Biology Annual Meeting, Chattanooga, TN USA

**Hitch AT**, Grand JB (2008) Do avian abundances differ between habitat types, implications for assessment of habitat quality? Joint Meeting of the Wilson Ornithological Society and the Association of Field Ornithologists, Mobile, AL, USA.

**Hitch AT**, Grand JB, Allen SL (2008) Are Avian Habitat Relationships Estimated from Remotely Sensed Data Applicable on a Regional Scale. 4<sup>th</sup> International Partners in Flight Conference, McAllen, TX, USA.

Johnson CB, **Hitch AT**, Grand JB (2008) Predicting the Occurrence of Brown-headed Cowbirds in Northeastern Alabama. 4<sup>th</sup> International Partners in Flight Conference, McAllen, TX, USA.

**Hitch AT**, Leberg PL (2007) Interactions of Salinity, Marsh Fragmentation and Submerged Aquatic Vegetation on Resident marsh Nekton Assemblages in Coastal Louisiana. 28<sup>th</sup> Annual Meeting of the Society of Wetland Scientists, Sacramento, CA USA

## **INVITED LECTURES**

---

2007 Habitat relationships and probabilistic distributions of breeding birds and small mammals using occupancy analysis in the Cumberland Plateau, AL

Texas State University Department of Biology Seminar Series, San Marcos TX

2006 Interactions of Salinity, Marsh Fragmentation and Submerged Aquatic Vegetation on Resident marsh Nekton Assemblages in Coastal Louisiana

Departmental Seminar, Museum of Natural History Louisiana State University, Baton Rouge LA

## **REFERENCES AVAILABLE UPON REQUEST**

---

James B. Grand, Ph.D. (Ph. D Advisor)  
Alabama Cooperative Fisheries and Wildlife Research Unit  
3301 School of Forestry and Wildlife Sciences  
Auburn University  
Auburn AL 36849-5418  
334.844.4796  
[grandjb@auburn.edu](mailto:grandjb@auburn.edu)

Geoff Hill, Ph.D.  
Department of Biological Sciences

# Alan T. Hitch, Ph. D. Candidate

*Auburn University • School of Forestry and Wildlife Sciences*

*SFWS Building • Auburn, AL 36849*

334-444-4353 • [hitchat@auburn.edu](mailto:hitchat@auburn.edu)

101 Rouse Life Sciences Building

Auburn University

Auburn, AL 36849

334.844.7410

[hillgee@auburn.edu](mailto:hillgee@auburn.edu)