Dr. Austin M. Smith

Curriculum Vitae

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EDUCATION

December 2024	**Doctor of Philosophy**, University of South Florida, Tampa, FL Major: Integrative Biology - Ecology & Evolution Advisor: Andrew M. Kramer Dissertation: "Species distribution models with environmental time series data and deep learning"
May 2018	**Master of Science**, University of Florida, Gainesville, FL Major: Interdisciplinary Ecology – Wildlife Ecology & Conservation Advisors: Wendell P. Cropper Jr.; Michael Moulton Thesis: "A comparison of machine learning methods to classify Chukar Partridge (*Alectoris chukar*) establishment patterns in Washington state"
August 2013	**Bachelor of Arts**, University of Florida, Gainesville, FL Major: Mathematics Minor: Secondary Education

WORK EXPERIENCE

**Ongoing project*

Postdoctoral Researcher June 2025 – Present
University of Florida – Department of Wildlife Ecology & Conservation
USGS Climate Adaptation Postdoctoral Fellow

Graduate Research Assistant May 2020 – December 2024
University of South Florida – Department of Integrative Biology

Graduate Teaching Assistant August 2019 – December 2024
University of South Florida – Department of Integrative

Assistant Researcher November 2018 – January 2020
University of South Florida – Department of Integrative Biology

Graduate Assistant August 2015 – May 2018
University of Florida – Department of Wildlife Ecology & Conservation

PEER-REVIEWED PUBLICATIONS

Published:

- **A. M. Smith**, W. P. Cropper Jr., M. P. Moulton. 2025. A machine learning approach to managing game bird introductions. PeerJ. https://doi.org/10.7717/peerj.20291

- **A. M. Smith**, W. P. Cropper Jr., M. P. Moulton. 2021. A quantitative assessment of site-level factors in influencing Chukar (*Alectoris chukar*) introduction outcomes. PeerJ. https://doi.org/10.7717/peerj.11280

In review:

- **A.M. Smith**, C. Capinha, A. M. Kramer. Incorporating environmental time series into species distribution models. *In review*
    - **Pre-print available on bioRxiv**: https://doi.org/10.1101/2022.10.26.513922

In preparation:

- M. P. Moulton, W. P. Cropper Jr., **A. M. Smith**. A comment on Rock Partridge (*Alectoris graeca*) introductions.

- **A.M. Smith**, A. M. Kramer. Assessing deep learning protocols for optimizing time series-based species distribution models

- **A.M. Smith**, A. M. Kramer. Forecasting Species Distributions with Time Series Classification Models

- Anna Thonis, Adam Smith, Toni Lyn Morelli, Nikki Cavalieri, and Uzma Ashraf et. al. (SDM Workflows Project Team including **A.M. Smith).** A collaborative study on structural uncertainty in species distribution modeling.

PRESENTATIONS

** Presenting author*

Contributed:

- **A. M. Smith,** W. P. Cropper Jr.*, M. Moulton. Introductions of chukars (*Alectoris chukar*) in the United States. 85th Annual Meeting of the Association of Southeastern Biologists. March 2024, Chattanooga, TN

- **A. M. Smith***, C. Capinha, A. M. Kramer. Species distribution modeling with time series data and deep learning. (poster). University of South Florida Artificial Intelligence + X Symposium. September 2023, Tampa, FL.

- **A. M. Smith***, A. M. Kramer. Assessing deep learning protocols for optimizing time series-based species distribution models. (poster). Ecological Society of America Annual Meeting. August 2023, Portland, OR.

- **A. M. Smith***, C. Capinha, A. M. Kramer. Predicting species distributions with environmental time-series data and deep-learning. Ecological Society of America Annual Meeting. August 2021, Virtual.

- **A. M. Smith*,** W. P. Cropper Jr., M. Moulton. A comparison of machine learning methods to classify Chukar Partridge (*Alectoris chukar*) establishment patterns in Washington State. (poster). Ecological Society of America Annual Meeting. August 2018, New Orleans, LA.

Invited:

- University of South Florida, Department of Integrative Biology seminar series. A comparison of machine learning methods to classify chukar establishment patterns in Washington state. November 2019.

- University of South Florida, USF Math Club speaker series. Mathematics and machine learning: tools for niche theory & species distribution models. October 2019.

GRANTS & FELLOWSHIPS

Aug 2023 – Dec 2023	*Dissertation Completion Fellowship*, Office of Graduate Studies, University of South Florida, Tampa, FL. $9,000 + tuition & fees
June 2023	*Conference Travel Award*, Department of Integrative Biology, University of South Florida, Tampa, FL, $2236.67
June 2017	*Conference Travel Funding*, Department of Wildlife Ecology and Conservation, University of Florida, $1300

COURSE TAUGHT

Primary instructor:

- **Instructor**, BSC2011L – Biodiversity, University of South Florida. Lab. 2 sections, 24 students (each).
    - Semesters taught: Fall 2024; Spring 2023; Fall 2022; Spring 2020; Fall 2019.

- **Instructor**, PCB3043L – Principles of Ecology, University of South Florida. Lab. 2 sections, 23 students (each).
    - Semesters taught: Spring 2022

Secondary instructor:

- **Teaching Assistant**, BSC2011 – Biodiversity, University of South Florida. Lecture. 1 section, ~250 students.
    - Semesters taught: Spring 2023

- **Teaching Assistant**, WIS 2040 – Wildlife Issues in a Changing World, University of Florida. 3 section, ~ 150 students (each).
    - Semesters taught: Spring 2018; Fall 2017; Summer 2017; Spring 2017; Fall 2016; Summer 2016; Spring 2016

- **Teaching Assistant**, WIS 2552 – Biodiversity Conservation: Global Perspectives, University of Florida. Online. 1 section, 50 students.
    - Semesters taught: Spring 2018; Fall 2017; Summer 2017; Spring 2017; Fall 2016; Summer 2016; Spring 2016

Guest lecturer:

- PCB 6456C – Biometry (graduate course), University of South Florida. Lecture and lab. Spring 2024

- PCB 6456C – Biometry (graduate course), University of South Florida. Lecture and lab. Spring 2023

MENTORING

Undergraduates:

- Jordan Kaszyk (B.S. Cellular and Molecular Biology, University of South Florida. Spatial modeling of Chronic Wasting Disease. Spring 2020 – Summer 2022

- Raquel Gonzalez (B.S. Integrative Animal Biology), University of South Florida. Spatial modeling of invasive species. Fall 2019

PROFESSIONAL SERVICES

Journal Reviews:

- General Ecology: Ecosphere (1)
- Ornithology: Ornithological Applications (2)

Community Experience:

2018 – Present *Lead Caretaker & Community Educator*, Bird of Prey Aviary, Boyd Hill Nature Preserve, St. Petersburg, FL

Professional Affiliations:

American Association for the Advancement of Science (2018-2021); American Ornithological Society (since 2018); British Ecological Society (since 2022); Ecological Society of America (since 2017); The Wildlife Society (since 2018)