CLARK V. PEARSON, PH.D.
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Education

Tulane University, New Orleans, LA
Ph.D., Ecology, May 2008
Dissertation: Determinants of Insect Diversity at the Local and Regional Scale

Mesa State College, Grand Junction, CO
B.Sc. *cum laude*, Biology, May 2000

Red Rocks Community College, Golden, CO
A.A., Humanities, May 1996

Honors and Awards

2016	Adjunct Faculty of the year Nevada State College
2004	Outstanding Service as a Teaching Assistant Tulane University
2003	Outstanding Service as a Teaching Assistant Tulane University
1999	Steven J Rekemeyer Scholarship Mesa State College

Teaching Experience

Lecturer of First Year Experience, August 2019 – Present
Nevada State College, Henderson, NV

Part Time Instructor, August 2013 – 2019
Nevada State College, Henderson, NV

Private Instructor to a child with special needs, August 2011 – July 2013
Colorado Virtual Academy, Denver, CO

Visiting Associate Professor, August 2008 – June 2009
Tulane University, New Orleans, LA

Laboratory Teaching Assistant, August 2000 – May 2008
Tulane University, New Orleans, LA

COURSES

Introduction to Biology for Non-Majors
Developed introductory lecture material for students who are not majoring in biology. Topics include the scientific method, basic biochemistry, cell structure and function, genetics, evolution and ecology. Laboratory exercises gave students a chance to participate with each other as they engaged in activities designed to reinforce material covered in lecture and discussion groups.

Introduction to Biology for Nursing majors
Developed lecture and laboratory material for a survey of contemporary biology, including: structure, function, interactions and evolutionary origins of living systems.

Principles of Biology I – Introduction to Biology for Majors
Developed lecture and laboratory material providing a survey of the basic features of living systems, including the chemical and physical structure of cells, classification of living organisms, and principles of genetics, ecology and evolution.

Principles of Biology II – A Survey of Biological Diversity
Developed lecture and laboratory material providing a survey of organismal biology in an evolutionary context focusing on biodiversity and classification, structure and function, reproduction and physiology of the major groups of organisms from prokaryotes to animals.

Introduction to Microbiology
Developed lecture material covering common features of life and detailed comparisons between Eukaryotic and prokaryotic organisms with a detailed introduction to the organisms being studied, including bacteria, viruses, algae, fungi and protozoa. Taxa examined include, but are not limited to, pathological agents as well as their metabolism, nutrition and other elements required to understand the mechanisms of microorganism survival. Through hands on lab experience the students become familiar with techniques including culturing, identification and laboratory protocol.

Introduction to Ecology
An introduction to the principles of modern ecology at the population, community, and ecosystem levels. Course work is a mixture of modeling and mathematical principles as well as a survey of evolutionary strategies and a tour of the major biomes of the world.

Introduction to Environmental Science
An introduction to the relationship of humans to our environment. This course focuses on current research examining the impact of industrialization and urbanization on environmental quality, including population and resource use; pollution of air, land surface and water; the public agencies and policies designated to solve environmental problems.

Introduction to Entomology
Lecture course and lab at Tulane University composed of upper division undergraduates and graduate students. Demonstrated techniques for comprehensive insect identification, created and presented lectures and organized and led insect collecting field trips.

Ornithology
Dissected specimens, planned laboratory lectures, and guided weekly field trips.

Stream Ecology
Developed and delivered class lectures and aided students with fish and arthropod identification and subsequent data analysis and presentation.

Vertebrate Morphology
Assisted class professor with set-up of labs and practical exams.

Student Mentoring
Most recently I had the honor of mentoring two students from NSC who worked with collaborators at the University of Reno and The Organization for Tropical Studies S. Africa and gained valuable experience with a research university. One student is going to graduate school as a result of her experience. Over the course of my graduate career and as an instructor I have had the pleasure to mentor several biology majors and I look forward to more of these rewarding interactions.

Research Experience

August 2000 – May 2008	Dissertation focused on tri-trophic interactions in a wide variety of grassland ecosystems at local and regional scales. Research involved collection and curation of a broad diversity of insects from ecosystems in Colorado, New Mexico, Arizona, and Ecuador and documenting the diverse trophic interactions associated with arthropod dominated ecosystems.
April 2000 – present	Design and analysis of ecological experiments in alfalfa fields, managed fields, and natural fields.
May 1999 – June 2009	Curation of insect teaching collections for Tulane University and Mesa State College.
January 1999 – present	Collection, preservation and identification of insects using a variety of standard techniques.
August – December 2001	Extracted and analyzed plant secondary compounds, specifically alfalfa saponin content.

Research Interests

The focus of my dissertation was to measure plant and arthropod community trophic interactions in agricultural (alfalfa), managed (cattle grazed) and unmanaged (riparian grasslands) field ecosystems. Using correlational statistics, path analysis, and experimental studies, I determined the direction and magnitude of top-down and bottom-up interactions, (i.e. diversity cascades) in these communities. Using similar techniques, I have also investigated tritrophic interactions along temperature and latitudinal gradients. Results from this research demonstrated that trophic interactions affect plant and animal diversity in a variety of terrestrial ecosystems. Conclusions based upon this research are consistent with the hypothesis that as overall diversity increases, natural enemies have stronger effects on biotic communities, while less diverse communities are dominated by the effects of plant resources. Studies involving this framework are relevant to understanding a major global challenge: loss of biodiversity. One of the skill sets I developed in association with this research is a solid knowledge of insect natural history and taxonomy in numerous orders and families associated with agricultural communities.

Publications

Dyer, L.A., Wagner, D.L., Greeney, H.F., Smilanich, A.M., Massad, T.M., Robinson, M. Fox, M., Hazen, R., Glassmire, A., Pardikes, N., Fredrickson, K., **Pearson, C.**, Gentry, G.L., and J.O. Stireman III. 2012. Novel insights into tritrophic interaction diversity and chemical ecology using 16 years of volunteer supported research. American Entomologist, in press.

Pearson, CV. 2008. Determinants of Insect Diversity at the Local and Regional Scale. PhD Dissertation. Tulane University.

Pearson CV, Massad TJ, Dyer LA. 2008. Diversity cascades in alfalfa fields: from plant quality to agroecosystem diversity. *Journal of Environmental Entomology* 37(4): 947 – 955.

Pearson CV, Dyer LA. 2006. Trophic diversity in two grassland ecosystems. *Journal of Insect Science* 6:25, available online: insectscience.org/6.25

Seminar Presentations

Trophic Diversity in Two Grassland Ecosystems
Loyola University New Orleans Spring Research Seminar Series, New Orleans, LA, April 2007.

Biotic Determinants of Alpha Diversity of Insects in Two Grassland Ecosystems
Entomological Society of America Annual Meeting and Exhibition, Ft. Lauderdale, FL, December 2005.

Insects, Ecology and Carpenter Ranch
Invited speaker at The Nature Conservancy at Carpenter Ranch, Hayden, CO, June 2003.

Insect Diversity along a Latitudinal Gradient from Texas to Costa Rica
Entomological Society of America Annual Meeting and Exhibition South-Eastern Branch, Little Rock, AR, March 2002.

Professional Service

- Peer Reviewer for *Arthropod-Plant Interactions*
- Peer Reviewer for *Oecologia*
- Peer Reviewer for *Soil Biology & Biochemistry*
- Peer Reviewer for *Annals of the Entomological Society of America*
- Reviewer for Oxford University Press
- Graduate student member of Tulane University Honor Board

Community Outreach

Developed and tailored insect ecology workshops for children of all ages; presented hands-on experiences using local insect diversity to introduce children and their parents to the natural history of various arthropods. For several years I have worked with colleagues and teams of both adult and high school students from Earthwatch on plant – caterpillar food webs (http://www.caterpillars.org).

Professional Memberships

2002 – 2005 Entomological Society of America

Key Competencies

- Comprehensive knowledge of insect taxonomy relating to agricultural pests and associated predators
- Proficient in multiple sampling techniques of aquatic and terrestrial arthropods
- Experienced with use of SAS, Sigma Plot and Excel in statistical analysis and data presentation
- Broad range of experience in navigating diverse ecosystems
- Equally comfortable with collaborative and independent work
- Science education and lecturing and mentoring students