

Meelyn Mayank Pandit

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Current Position

2014- Present. Teaching Graduate Assistant at Oklahoma State University

Education

Oklahoma State University: 2014-Present

Stillwater, OK

Master's Student, **Major Advisor:** Dr. Jennifer Grindstaff. Expected Graduation 2016

Indiana University: 2009- 2013,

Bloomington, IN

Degree: Bachelor of Science in Biology, Certificate in Animal Behavior

Publications

Atwell, JW; D Reichard, G Cardoso; **MM Pandit**; T Price, and ED Ketterson. "The ontogeny of birdsong divergence in response to urban noise: insights from a common garden experiment." In Review

Combes, S; M Salcedo; **MM Pandit**; J Iwasaki. "How General are predator-prey interactions? Capture success and efficiency of dragonflies pursuing different types of prey." *Integrative and Comparative Biology*. 53.5 (2013): 787-798.

Presentations

Pandit, MM; JF Gonzalez; JW Atwell; DG Reichard; ED Ketterson. Investigating the evolution of social and vocal complexity in birds: a phylogenetic approach. Lunchtime seminar presentation. Oklahoma State University

Pandit, MM; JF Gonzalez; JW Atwell; DG Reichard; ED Ketterson. Investigating the evolution of social and vocal complexity in birds: a phylogenetic approach. Thesis Defense at Indiana University.

Pandit, MM; TJ Weiland, C Switzer, JM Iwasaki, SA Combes. Costs and benefits of aerial predation in dragonflies. Poster Presentation at the Society of Integrative and Comparative Biology in San Francisco, California, USA.

Combes, SA; JM Iwasaki; **MM Pandit**; et al. The role of identity in predator-prey interactions: Are mechanics and strategy one-size-fits-all or tailored to each adversary? Poster Presentation at the Society of Integrative and Comparative Biology in San Francisco, California, USA.

Pandit, MM; J Shaw; A Chinsamy-Turan. 2012. Determining age and sex of Ludwig's bustards through bone microstructure. Oral Presentation at the Society of Avian Paleontology and Evolution in Vienna, Austria

Pandit, MM; A Calabrese; S Weeks. 2011. Examining the maintenance of androdioecy in clam shrimp. Poster presentation at the McNair Scholars Symposium. Oral Presentation at the University of Akron Research Education for Undergraduates Final Presentation

Pandit, MM; E Carlton; ED Ketterson. 2010. Are song performance and song rate honest indicators of current immunological state in Dark-eyed Juncos? Oral presentation at Mountain Lake Biological Station Research Education for Undergraduates Final Presentation

Pandit, MM; DG Reichard; JW Atwell; RP Kiley; ED Ketterson. 2010. Seasonal development and population differences in the song characteristics of captive Dark-eyed Juncos in a common garden study. Poster presentation at the Science, Technology, and Research Scholars Symposium, the Center for Integrative Study of Animal Behavior Conference, and the Hutton Honors Research Conference

Pandit, MM; JW Atwell; RP Kiley; ED Ketterson. 2009. Measuring Behavioral Differences between Two Populations of Dark-eyed Juncos: Novel Objects. Oral Presentation at the Integrated Freshman Learning Experience and the Indiana University Undergraduate Research Conference

Honors and Awards

March 2010

3rd Place Poster- Center for Integrative Study of Animal Behavior Conference

May 2009

IU Cox Research Scholarship

Science, Technology, and Research Scholar (STARS) Recipient

Previous Research Experience

March 2014 – July 2014

Carmel Valley, California

Cornell Lab of Ornithology
Hastings Natural History Reservation

Western Bluebird Population Monitoring Project

- Monitor Western Bluebird population around Hastings Natural History Reservation
- Primary responsibilities: build nest boxes, census nest boxes, weekly, band adults, band and measure nestlings, recording bluebird dawn chorus using Marantz recorder and shotgun microphone

July 2013 – February 2014

Bloomington, Indiana

Indiana University Bloomington
Department of Biology

Junco Data Compilation Project

- Assist with aviary maintenance and manage databases for field study sites
- Primary responsibilities: assist in aviary maintenance, organize data in Excel and FileMaker Pro.

August 2012 – June 2013

Bloomington, Indiana

Indiana University Bloomington
Department of Biology

Investigating the evolution of social and vocal complexity in birds: a phylogenetic approach

- Conducted research project examining the relationship between vocal complexity and social complexity across multiple North American avian families
- Primary responsibilities: used Birds of North America database to obtain data on vocal repertoire size and social systems for North American bird species

June 2012 – August 2012

Cambridge, Massachusetts

Harvard University
Department of Organismic & Evolutionary Biology

Costs and benefits of aerial predation in dragonflies

- Conducted research project examining dragonfly flight behavior and biomechanics
- Primary responsibilities: filming predator-prey interactions, capturing and weighing dragonflies, and surveying local dragonfly and mosquito populations

February 2012 – June 2012

Cape Town, South Africa

University of Cape Town
Department of Zoology

Determining age and sex of Ludwig's bustards through bone microstructure

- Conducted research project examining bone morphometrics and microstructure of the Ludwig's bustard
- Primary responsibilities: measuring the humeri of bustards, sectioning bones, and examining bone microstructure for bone growth patterns

May 2011 – July 2011

Akron, Ohio

National Science Foundation-REU
University of Akron

Androdioecy in clam shrimp: Sexual conflict vs. metapopulation hypothesis

- Completed research project titled, "Examining the maintenance of androdioecy in clam shrimp"
- Primary responsibilities: collecting behavioral data from mate guarding and tracking assays, scoring videos for mating behaviors, hydrating Australian soil samples to produce shrimp, feeding shrimp daily, constructing plexiglass arenas

May 2010 – August 2010
Pembroke, Virginia

National Science Foundation-REU
Mountain Lake Biological Station

Honest signaling of immunological condition in Juncos (songbirds)

- Assisted with long-term population monitoring of juncos at Mountain Lake
- Primary responsibilities: collecting behavioral data (simulated territorial intrusions), recording junco territorial songs, capturing juncos, and examining blood smears for leukocyte concentrations

July 2009 – December 2011
Bloomington, Indiana

Indiana University Bloomington
Department of Biology

Studies of recently diverged songbird populations

- Analyzed long-range and short-range songs from two recently diverged populations of captive Oregon juncos to determine if song phenology and song traits differ between the two populations
- Primary responsibilities: analyzing different song types, trill bouts, min, and max frequencies

References

Dr. Jennifer Grindstaff, Associate Professor, Department of Zoology, Oklahoma State University; (405)-744-9676, jen.grindstaff@okstate.edu

Dr. Janis L. Dickinson, Professor, Natural Resources, College of Agriculture and Life Sciences, and Cornell Laboratory of Ornithology; Cornell University; (607)-254-2194, jld84@cornell.edu

Dr. Ellen D. Ketterson, Distinguished Professor of Biology and Gender Studies, Department of Biology, Indiana University; (812)-855-6837, ketterso@indiana.edu

Dr. Jonathan W. Atwell, Postdoctoral Research Associate, Department of Biology, Indiana University; jwatwell@indiana.edu

Dr. Adam Fudickar, Postdoctoral Research Associate, Department of Biology, Indiana University; 812-855-1096, afudickar@gmail.com

Dr. Dustin Reichard, Postdoctoral Research Associate, Department of Evolution and Ecology, University of California, Davis; dgreichard@ucdavis.edu

Dr. Stacey Combes, Associate Professor, Department of Organismic and Evolutionary Biology, Harvard University; scombes@oeb.harvard.edu

Jessica M. Shaw, Ph.D. Candidate, Percy FitzPatrick Institute of African Ornithology, University of Cape Town; jessica.shaw@uct.ac.za, +27-(0)-21-650-3306

Dr. Anusuya Chinsamy-Turan, Professor and Department Head, Department of Biological Sciences, University of Cape Town; Anusuya.Chinsamy-Turan@uct.ac.za

Dr. Stephen Weeks, Professor, Department of Biology, University of Akron; scw@uakron.edu, (330)-972-7156

Alissa Calabrese, Ph.D. Candidate, Department of Biology, University of Akron; alissa22@gmail.com

Elizabeth Carlton, Ph.D. Candidate, Department of Biology, Indiana University; ecarlto@indiana.edu, (812)-855-6257