

Jeffrey M. DaCosta, Ph.D.

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Boston College
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EDUCATION

- 2014 Ph.D. Biology
Department of Biology, Boston University, Boston, MA
Academic Advisor: Dr. Michael Sorenson
- 2006 M.Sc. Biology
School of Life Sciences, University of Nevada, Las Vegas, NV
Academic advisors: Dr. John Klicka and Dr. Brett Riddle
- 1998 B.S. Biology
Department of Biology, University of Massachusetts, Amherst, MA

PROFESSIONAL APPOINTMENTS

- 2016-Present Assistant Professor of the Practice
Biology Department, Boston College, Chestnut Hill, MA
Ecology, Behavior, and Evolution
- 2016-Present Associate
Dept. Organismic and Evolutionary Biol., Harvard University, Cambridge, MA
- 2004-Present Research Equipment Program Chair and Board Member
Neotropical Grassland Conservancy
NGO dedicated to the conservation of Neotropical grasslands
- 2014-2016 Post-doctoral Fellow
Dept. Organismic and Evolutionary Biol., Harvard University, Cambridge, MA
Comparative genomics of a species radiation: sequencing the apple tribe
- 2007-2014 Research and Teaching Fellow
Department of Biology, Boston University, Boston, MA
- 2005-2006 Research Technician
School of Life Sciences, University of Nevada, Las Vegas, NV
Surveys of flammulated owls (*Otus flammeolus*) in Nevada
- 2003-2006 Research and Teaching Assistant
School of Life Sciences, University of Nevada, Las Vegas, NV
- 2000-2003 R&D Specialist I
Transkaryotic Therapies, Cambridge, MA
Pre-clinical research using a knockout mouse model

- 1999-2000 Field Assistant
 Dept. of Ecology and Evolutionary Biol., Cornell University, Ithaca, NY
 Worked for PhD candidates in David Winkler's lab at Cornell
- 1998 Intern
 US Department of Agriculture, Mapleton, OR
 Population monitoring of the northern spotted owl (*Strix occidentalis*)

PUBLICATIONS

- DaCosta JM**, Miller MJ, Mortensen JL, Reed JM, Curry RL, and Sorenson MD. *In Review*. Phylogenomics clarifies biogeographic and evolutionary history, and conservation status of West Indian tremblers and thrashers (Aves: Mimidae). *Molecular Phylogenetics and Evolution*. bioRxiv doi: 10.1101/540658
- Dongmo JB, **DaCosta JM**, Djieto-Lordon C, Ngassam P, Sorenson MD. *In Review*. Variable phylogeographic histories of five forest birds with populations in Upper and Lower Guinea: implications for taxonomy and evolutionary conservation. *Ostrich*.
- Lavretsky P, **DaCosta JM**, Sorenson MD, McCracken KG, Peters JL. *In Review*. ddRAD-seq data reveal significant genome-wide population structure and divergent genomic regions that distinguish the mallard and close relatives in North America. *Molecular Ecology*.
- Peters JL, Lavretsky P, **DaCosta JM**, Bielefeld RR, Feddersen JC, Sorenson MD. 2016. Population genomic data delineate conservation units in mottled ducks (*Anas fulvigula*). *Biological Conservation*. 203: 272-281.
- Yant L, Arnold B, Lahner B, **DaCosta JM**, Weisman CM, Hollister JD, Salt DE, and Bomblies K. 2016. Borrowed alleles and convergence: serpentine adaptation in the face of inter- and intraspecific gene flow. *Proceedings of the National Academy of Sciences – USA*. 113: 8320-8325.
- DaCosta JM** and Sorenson MD. 2016. ddRAD-seq phylogenetics based on nucleotide, indel, and presence-absence polymorphisms: analyses of two avian genera with contrasting histories. *Molecular Phylogenetics and Evolution*. 94: 122-135.
- Lavretsky P, **DaCosta JM**, Hernández-Baños B, Engilis A, Sorenson MD, and Peters J. 2015. Speciation genomics and a role for the Z chromosome in the early stages of divergence between Mexican ducks and mallards. *Molecular Ecology*. 24: 5364–5378.
- Ebel E, **DaCosta JM**, Sorenson MD, Hill R, Briscoe A, Willmott K, and Mullen S. 2015. Rapid diversification associated with ecological specialization in Neotropical *Adelpha* butterflies. *Molecular Ecology*. 24: 2392-2405.
- DaCosta JM** and Sorenson MD. 2014. Amplification biases and consistent recovery of loci in a double-digest RAD-seq protocol. *PLoS One*. 9: e106713.
- DaCosta JM** and Sorenson MD. 2014. An experimental test of host song mimicry as a species recognition cue among male brood parasitic indigobirds (*Vidua* spp.). *Auk: Ornithological Advances*. 131: 549-558.
- Sorenson MD and **DaCosta JM**. 2011. Genotyping HapSTR loci: phase determination from direct sequencing of PCR products. *Molecular Ecology Resources*. 11: 1068-1075.

- DaCosta JM**, Spellman GM, Escalante P, and Klicka J. 2009. A molecular systematic revision of two historically problematic songbird clades: *Aimiphila* and *Pipilo*. *Journal of Avian Biology*. 40: 206-216.
- DaCosta JM**, Wehtje W, and Klicka J. 2008. Historic genetic structure and parphyly within the Great-tailed Grackles. *Condor*. 110: 170-177.
- DaCosta JM** and Klicka J. 2008. The Great American Interchange in birds: a phylogenetic perspective with the genus *Trogon*. *Molecular Ecology*. 17:1328-1343.
- DaCosta JM**, Spellman GM, and Klicka J. 2007. Bilateral gynandromorphy in a White-ruffed Manakin (*Corapipo altera*). *Wilson Journal of Ornithology*. 119:289-291.
- Garcia AR, **DaCosta JM**, Pan J, Muenzer J, and Lamsa JC. 2007. Preclinical dose ranging studies for enzyme replacement therapy with idursulfase in a knock-out mouse model of MPS II. *Molecular Genetics and Metabolism*. 91:183-190.
- Muenzer J, Lamsa JC, Garcia AR, **DaCosta JM**, Garcia J, and Treco DA. 2002. Enzyme Replacement therapy in mucopolysaccharidosis type II (Hunter syndrome): a preliminary report. *Acta Paediatrica Supplement*. 91:98-99.

TEACHING EXPERIENCE

- 2016 Assistant Professor of the Practice
Biology Department, Boston College, Chestnut Hill, MA
BIOL2010: Ecology and Evolution
BIOL4450: Behavioral Ecology
BIOL4802: Research in Evolutionary Genomics
- 2015 Lecturer
College of General Studies, Boston University, Boston, MA
CGS NS201: Biology 1
- 2014 Lecturer (course designer)
Experimental College, Tufts University, Medford, MA
EXP-0032-F: Renewable Energy: The Ecological Impacts
- 2007-2013 Teaching Fellow¹ and Guest Lecturer²
Department of Biology, Boston University, Boston, MA
CAS BI 302: Vertebrate Zoology¹
CAS BI 303: Evolutionary Ecology^{1,2}
CAS BI 407: Animal Behavior¹
CAS BI 508: Behavioral Ecology^{1,2}
ZOOL 733: Behavioral Ecology² (University of New Hampshire)
- 2003-2005 Teaching Assistant
School of Life Sciences University of Nevada Las Vegas, Las Vegas, NV
BIOL 189: Fundamentals of Life Science

GRANTS AND AWARDS

- 2018: NSF DEB – Collaborative Research: Comparative Genomics of Host-specific Adaptation and Life History Evolution of Brood Parasitic Birds (\$99,106)

2013: 1st Place (poster): BU Biology Graduate Student Association student symposium.
2011: Boston University Department of Biology Outstanding Teaching Fellow.
2010: NSF DDIG – RAD phylogenetics: harnessing next-generation sequencing for molecular systematics (\$13,223).
2008: American Museum of Natural History Chapman Memorial Grant (\$2,100).
2005: UNLV Graduate Research Assistantship Training Grant (\$3,600).
2005: 1st Place (oral): UNLV Graduate and Professional Student Organization research forum.
2004-2006: UNLV Graduate and Professional Student Association grant (x4) (\$2,250).

PRESENTATIONS & WORKSHOPS

Invited Speaker:

2014: University of Massachusetts Lowell, Lowell, MA.
2013: Louisiana State University Museum of Natural History, Baton Rouge, LA.
2013: Wright State University, Dayton, OH.
2012: American Museum of Natural History, New York, NY.
2009: University of Dar es Salaam & Houghton College (Tanzania campus), Tanzania.
2008: Colby College, Waterville, ME.

Professional Meetings:

2014: Evolution, Raleigh, NC.
2012: North American Ornithological Conference, Vancouver, BC.
2009: American Ornithologists' Union, Philadelphia, PA.
2009: Society of Integrative and Comparative Biology, Boston, MA.
2008: Evolution, Minnesota, MN.
2005: American Ornithologists' Union, Santa Barbara, CA.

Professional Workshops:

2011: Evolutionary Genomics of Non-Model Species: Next Generation Sequencing, Data Management, and Hypothesis Testing. – American Genetics Association, Irapuato, Mexico.
2010: Genetics and Genomics of Speciation. – EU Marie Curie Initial Training Network, Speciation, Sheffield, Great Britain.

SERVICE AND COMMUNITY OUTREACH

Committee Member: Curriculum Committee, Biology Department, Boston College.

Undergraduate Advisor: Faculty advisor for 30-40 undergrad Biology majors, Boston College.

Student Group Advisor: Life Sciences Journal, Biology Department, Boston College.

Grant Reviewer: National Science Foundation, Portuguese Foundation of Science and Technology.

Journal Reviewer: African Journal of Ecology, Auk: Ornithological Advances, BMC Evolutionary Biology, Evolution, Journal of Biogeography, Journal of Caribbean Ornithology, Molecular Ecology, Molecular Phylogenetics and Systematics, PeerJ, Wilson Journal of Ornithology.

Guest Lecturer: Boston University GK-12 program, 5th grade, Pierce School, Brookline, MA.

Volunteer Scientist: Hunkle Elementary School ScienceFest; Biology Inquiry and Outreach with Boston University Graduate Students (BIOBUGS).

Judge: The English High School Science Fair.