

## MICHAEL D. SORENSON

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### EDUCATION

University of Minnesota, Minneapolis  
Ph.D. in Ecology, Evolution and Behavior, August 1990  
  
Luther College, Decorah, Iowa  
B.A. in Biology, May 1984  
Honors: Summa Cum Laude, Phi Beta Kappa

### PROFESSIONAL EXPERIENCE

Associate Dean of the Faculty, Natural Sciences, College of Arts & Sciences, January 2016 — present  
Department of Biology, Boston University, January 1998 — present  
Professor, September 2010 — present  
Department Chair, June 2010 — December 2015  
Associate Chair, September 2007 — May 2010  
Associate Professor, September 2004 — August 2010  
Assistant Professor, January 1998 — August 2004

#### Courses taught:

BI107 Biology I: Ecology, Behavior & Evolution (Fall 1999-2004, 2006-2009, 2014-2017)  
BI303 Evolutionary Ecology (Fall 1998)  
BI508 Behavioral Ecology (Spring 1999-2004, 2006-2008, 2010, 2012, 2014)  
BI515 Population Genetics (Spring 2009, 2013; Fall 2014)  
BI549 Molecular Phylogenetics and Evolution (Fall 1999, 2001, 2003, 2005, 2007)  
BI581 Seminar in Biology: Phylogeography (Fall 2000)  
BI581 Seminar in Biology: Beyond the Modern Synthesis (Fall 2008)  
BI582 Seminar in Biology: Molecular Ecology (Spring 2003, Fall 2004)  
BI582 Seminar in Biology: Population Genetics (Spring 2007)

Visiting Scholar, Harvard University Museum of Comparative Zoology, January—May 2005  
Postdoctoral Fellow, Museum of Zoology, University of Michigan, July 1995—Dec 1997  
National Science Foundation Postdoctoral Fellow, Molecular Genetics Laboratory, U.S. National Zoological Park, July 1993—June 1995  
Smithsonian Institution Postdoctoral Fellow / Research Associate, Conservation and Research Center, U.S. National Zoological Park, August 1990—June 1995  
Dissertation Research in Manitoba, 1986—1989  
Teaching Assistant, University of Minnesota, 1984—1988  
Research Assistant, Delta Waterfowl and Wetlands Research Station, Manitoba, 1985  
Research Assistant, University of Minnesota (fieldwork on sea otters in Alaska), 1984

## HONORS & AWARDS

Conference Plenary, American Ornithology 2017: Annual Meeting of the American Ornithological Society and Society of Canadian Ornithologists, August 2017  
 Elliott Coues Award, American Ornithologists Union, August 2016  
 Hoslett Memorial Lecture, Luther College, Decorah IA, October 2014  
 American Ornithologists Union, Elected Fellow, August 2009  
 American Ornithologists Union, Elective Member, April 1998  
 National Science Foundation Postdoctoral Fellowship, 1993-1995  
 Smithsonian Institution Postdoctoral Fellowship, 1990-1991

## FELLOWSHIPS & GRANTS

*COLLABORATIVE RESEARCH: Comparative Genomics of Host-specific Adaptation and Life History Evolution in Brood Parasitic Birds*, NSF (PI: Sorenson) [funding recommended] 2018-2022

*EAGER: The Genomic Landscape of Species Divergence in an Extraordinary Avian Radiation*, NSF (PI: Sorenson)  
 2014—2018 \$149,902

*White-nose Syndrome Research at Boston University*, Bat Conservation International (PI: Sorenson)  
 2013—2017 \$225,000

*DISSERTATION RESEARCH: Parent-embryo interactions in glassfrogs - female mating strategies, paternal effort, and adaptive plasticity in hatching*, NSF (PI: KM Warkentin, co-PI: Sorenson; PhD Candidate: J.R.J. Delia)  
 2015—2016 \$16,380

*DISSERTATION RESEARCH: Bats, Bugs and Pecans: Using Next-Generation Pyrosequencing to Evaluate Ecosystem Services of Insectivorous Bats*, NSF (PI: Sorenson; PhD Candidate: EC Braun de Torrez)  
 2012—2015 \$14,969

*DISSERTATION RESEARCH: Speciation Genomics: Expanded Sampling of a Remarkable Avian Radiation*, NSF (PI: Sorenson; PhD Candidate: K.F. Stryjewski)  
 2012—2014 \$14,426

*Assessing population genetic structure and gene flow in the little brown myotis*, Myotis lucifugus, Morris Animal Foundation (PI: T.H. Kunz; co-PI: Sorenson)  
 2010—2014 \$196,759

Sponsor for Martina Boerner, Postdoctoral Fellow, Marie Curie Actions – International Outgoing Fellowships, European Union  
 2011—2013 \$148,232

*Speciation in Lonchura munias, an extraordinary example of rapid evolutionary diversification*, National Geographic Society (PI: Sorenson)  
 2011—2012 \$21,670

*DISSERTATION RESEARCH: RAD Phylogenetics: Harnessing Next-Generation Sequencing for Molecular Systematics*, NSF (PI: Sorenson; PhD Candidate: J.M. DaCosta)  
 2010—2013 \$13,223

*Multilocus Analyses of Speciation, Hybridization, and Population Structure in Brood Parasitic Indigobirds*, NSF (PI: Sorenson)  
 2007—2013 \$440,966

REU supplements, NSF 2007, 2008, 2011 \$19,500

ROA supplement, NSF 2011 \$10,352

*Immune Function, Body Composition and Genetic Correlates of Bat White-nose Syndrome*, US Fish & Wildlife Service (PI: T.H. Kunz; co-PI: Sorenson)  
 2010 \$105,000

*Ecology of Infectious Diseases: Ecological Influences on Rabies Infections in Bats*, NSF/NIH (PI: GF McCracken, University of Tennessee)  
 2004—2007 \$1,496,000

(Boston University sub-award: co-PI: TH Kunz; senior persons: EP Widmaier, MD Sorenson)  
 2004—2007 \$578,503

*Development of Additional Genetic Markers to Differentiate Mottled Ducks from Mallards and Hybrids in Florida*, Florida Fish and Wildlife Conservation Commission (PI: Sorenson)  
 2005—2006 \$20,000

<i>Conflicting Evidence in Waterfowl Systematics</i> , NSF (PI: Sorenson; co-PI: HF James, Smithsonian Institution)	2001—2006	\$190,970
<i>Speciation in Brood Parasitic Indigobirds</i> , NSF (PI: Sorenson)	2001—2005	\$269,714
DISSERTATION RESEARCH: <i>Genetic Diversity and Population Structure of Ectoparasitic Lice Associated with Brood Parasitic Finches Viduidae and their Estrildid Finch Hosts</i> , NSF (PI: Sorenson; PhD Candidate: CN Balakrishnan)	2003—2005	\$11,955
<i>An Automated DNA sequencer for the Department of Biology at Boston University</i> , NSF (PI: Sorenson; co-PIs: Celenza, Finnerty, Schneider)	2003—2005	\$102,887
<i>Hybridization Between Florida Mottled Ducks and Feral Mallards: An Assessment of the Florida Mottled Duck Genome</i> , Wildlife Foundation of Florida & Florida Fish & Wildlife Conservation Commission (PI: Sorenson)	2003—2004	\$24,329
<i>Population Genetics, Phylogeography, and Systematics of Black Ducks and Mallards</i> , Delta Waterfowl Foundation (PI: Sorenson)	2001—2004	\$56,500
<i>Collaborative Cross-Disciplinary Research in Ecology, Endocrinology, and Molecular Biology</i> , NSF REU Sites Program (PI: TH Kunz; co-PI: Sorenson)	2000—2003	\$163,500
Sponsor for Kristina Sefc, Postdoctoral Fellow, Austrian Science Fund	2000—2002	\$64,500
<i>Avian Ordinal Phylogeny Based on Mitochondrial DNA Sequences</i> , NSF (PI: DP Mindell, University of Michigan; co-PI: Sorenson)	1998—2002	\$210,803
REU supplements, NSF	1998—1999	\$15,000
National Science Foundation Postdoctoral Fellowship	1993—1995	\$69,600
Friends of the National Zoo (PI: SR Derrickson; co-PI: Sorenson)	1991—1994	\$41,000
Smithsonian Institution Postdoctoral Fellowship	1990—1991	\$21,000
Graduate Fellowships & Research Grants (various sources)	1984—1989	\$71,937

## GRADUATE STUDENTS

- Marina Ramon (MA, 1999-2000, phylogeography of Caribbean hamlet fish *Hypoplectrus* spp., co-advised with PS Lobel)
- Becki French (MA, 2001-2002, analysis of population differentiation among sympatric indigobird populations using amplified fragment length polymorphisms)
- Christopher N. Balakrishnan (PhD, 1999-2005, behavioral and population genetic tests of reproductive isolation among indigobird species in Cameroon)
- Violeta Muñoz-Fuentes (PhD, 2001-2005, visiting student from Estacion Biologica de Doñana, Spain, population genetics and hybridization of white-headed ducks and introduced ruddy ducks in Europe)
- Ryan J. Harrigan (PhD, 2001-2006, phylogeography and hybridization of mallards, black ducks, and mottled ducks)
- Kevin Yana Njabo (PhD, Jan. 2002-2006, phylogeography and systematics of montane forest birds in Cameroon)
- Tejashree Modak (MA, 2009-2011, molecular systematics and biogeography of Samoan land birds)
- Heather C. Shull (PhD, 2004-2012, molecular evolution and phylogenetics of estrildid and brood parasitic finches)
- Jeff DaCosta (PhD, 2007-2014, coalescent analyses of population structure and history in brood parasitic indigobirds)
- Aryn Wilder (PhD, 2009-2014, population genomics of little brown myotis, co-advised with TH Kunz, BU)
- Katherine Faust Stryjewski (PhD, 2008-2015, speciation in the *Lonchura munias* of Papua New Guinea)

## POSTDOCTORAL ASSOCIATES

Kristina M. Sefc (2000-2003, indigobird speciation and population structure)  
Heidi Fisher (2006-2007, hybridization in swordtails *Xiphophorus*, co-advised by Gil Rosenthal, Texas A&M University)  
Marianne Moore (2010, MHC and white-nose syndrome in bats, co-advised with Thomas H. Kunz)  
Martina (Boerner) Pauli (2011-2013, genetic variation for fitness in buzzards, co-advised with Oliver Kruger, University of Bielefeld, Germany)  
Aryn Wilder (2014-2016, immunogenomics of little brown myotis in relation to white-nose syndrome)

## FIELD EXPERIENCE

**Waterfowl:** Manitoba (7 seasons, 22 months total), Alberta, Wisconsin, Nevada, Minnesota, New York; Bahamas (4 trips, New Providence, Abaco, Great Inagua, Long Island)  
**Songbirds:** Papua New Guinea; Africa (7 trips): Cameroon (3 trips), Tanzania (2 trips), Zimbabwe/Zambia, Gambia/Guinea

## BOSTON UNIVERSITY SERVICE

Employee Benefits Advisory Committee (2017—present)  
Interdisciplinary Biomedical Research Advisory Board (2016—present)  
NEIDL Internal Advisory Committee (2015—present)  
Co-Chair (with DR Rosene), Committee on the Basic Life Sciences (2016—2017)  
Charles River Campus IACUC (2008—2011), Chair (2009—2011)  
Undergraduate Research Opportunities Program (UROP)  
Faculty Advisory Committee (2004—2007)  
Judge for Science Day poster competitions (2000—2004, 2009)  
Co-director (with TH Kunz) of National Science Foundation Research Experience for Undergraduates Site Program (2000—2002)

### Biology Department

Department Chair (2010—2015)  
Chair, Integrative Neurobiology Search Committee (2013—2015)  
Chairman's Advisory Committee (2005—2010)  
Director, DNA Sequencing Core Facility (1998—2007)  
Computer / Web Page Committee (1998—1999, 2007 - 2010)  
Chair, Web Page Redesign Committee (2007—2008)  
Supervisor for Departmental IT Support Staff Person (2007—2010)  
APT Committee (2005—2007)  
Chair, Evolutionary Genomics Search Committee (2009—2010)  
Chair, Marine Biology Search Committee (2008—2009)  
Evolutionary Biology Search Committee (2000—2001)  
Evolutionary Ecology Search Committee (1999—2000)  
Evolutionary Developmental Biology Search Committee (1998—1999)  
Graduate Admissions Committee (1998—2000)  
Ecology, Behavior and Evolution Seminar Series Coordinator (2001—2002)  
Faculty Merit Review Committee (2006, 2007)  
Library Committee (1999—2000, 2003—2004)  
Honors Biology (BI107 HC) Participating Faculty (2000—2009)

## MEMBERSHIPS & PROFESSIONAL SERVICE

American Ornithologists Union/American Ornithological Society  
Student Awards Committee, 2002  
Society for the Study of Evolution  
Society of Systematic Biologists  
Council Member, 2007-2009  
Ernst Mayr Award Committee, 2008  
Associate Editor, *Evolution: International Journal of Organic Evolution*, 2004—2006  
Associate Editor, *Ibis: The International Journal of Avian Science*, 2009—2010  
Evolutionary Genetics Panel – National Science Foundation, April 2010  
Evolutionary Genetics Panel – National Science Foundation, October 2008  
Evolutionary Genetics Panel – National Science Foundation, November 2007  
Systematic Biology Panel – National Science Foundation, October 2003

## PUBLICATIONS

- Stryjowski KF, Sorenson MD (2017) Mosaic genome evolution in an extraordinary avian radiation. *Nature Ecology and Evolution* 1, 1912-1922.
- Gomes ACR, Funghi C, Soma M, Sorenson MD, Cardoso GC (2017) Multi-modal signalling in estrildid finches: song, dance and colour are associated with different ecological and life history traits. *Journal of Evolutionary Biology* 30, 1336–1346.
- Gomes ACR, Sorenson MD, Cardoso GC (2016) Speciation is associated with changing ornamentation rather than stronger sexual selection. *Evolution* 70, 2823-2838.
- Peters JL, Lavretsky P, DaCosta JM, Bielefeld RR, Feddersen JC, Sorenson MD (2016) Genomic data delineate conservation units in mottled ducks (*Anas fulvigula*). *Biological Conservation* 203, 272-281.
- Fossey F, Sorenson MD, Liang W, Ekrem T, Moksnes A, Møller AP, Rutila J, Røskoft E, Takasu F, Yang C, Stokke BG (2016) Ancient origin and maternal inheritance of blue cuckoo eggs. *Nature Communications* 7, 10272.
- DaCosta JM, 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.
- Pauli M, Chakarov N, Rupp O, Kalinowski J, Goesmann A, Sorenson MD, Krüger O, Hoffman JI (2015) *De novo* assembly of the dual transcriptomes of a polymorphic raptor species and its malarial parasite. *BMC Genomics* 16, 1038.
- Wilder AP, Kunz TH, Sorenson MD (2015) Population genetic structure of a common host predicts the spread of white-nose syndrome, an emerging infectious disease in bats. *Molecular Ecology* 24, 5495-5506.
- Lavretsky P, DaCosta JM, Hernández-Baños BE, Engilis A, Sorenson MD, Peters JL (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 ER, DaCosta JM, Sorenson MD, Hill RI, Briscoe AD, Willmott KR, Mullen SP (2015) Rapid diversification associated with ecological specialization in Neotropical *Adelpha* butterflies. *Molecular Ecology* 24, 2392-2405.
- DaCosta JM, Sorenson MD (2014) Amplification biases and consistent recovery of loci in a double-digest RAD-seq protocol. *PLoS One* 9, e106713.
- DaCosta JM, Sorenson MD (2014) An experimental test of host song mimicry as a species recognition cue in brood parasitic indigobirds (*Vidua* spp.). *The Auk: Ornithological Advances* 131, 549-558.

## PUBLICATIONS (CONT.)

- Spottiswoode CN, Stryjewski KF, Quader S, Colebrook-Robjent JFR, Sorenson MD (2011) Ancient host specificity within a single species of brood parasitic bird. *Proceedings of the National Academy of Science USA* 43, 17738-17742.
- Sorenson MD, DaCosta JM (2011) Genotyping HapSTR loci: phase determination from direct sequencing of PCR products. *Molecular Ecology Resources* 11, 1068-1075.
- Turmelle AS, Kunz TH, Sorenson MD (2011) A tale of two genomes: Contrasting patterns of phylogeographic structure in a widely distributed bat. *Molecular Ecology* 20, 357-375.
- Culumber ZW, Fisher HS, Tobler M, Mateos M, Barber PH, Sorenson MD, Rosenthal GG (2011) Replicated hybrid zones of *Xiphoborus* swordtails along an elevational gradient. *Molecular Ecology* 20, 342-356.
- Mertl AL, Sorenson MD, Traniello JFA (2010) Community-level interactions and functional ecology of major workers in the hyperdiverse ground-foraging *Pheidole* (Hymenoptera, Formicidae) of Amazonian Ecuador. *Insectes Sociaux* 57, 441-452.
- Sorenson MD, Hauber ME, Derrickson SR (2010) Sexual imprinting misguides species recognition in a facultative interspecific brood parasite. *Proceedings of the Royal Society of London, Series B* 277, 3079-3085.
- McCracken KG, Barger CP, Sorenson MD (2010) Phylogenetic and structural analysis of the HbA (a<sup>A</sup>/b<sup>A</sup>) and HbD (a<sup>D</sup>/b<sup>A</sup>) hemoglobin genes in two high-altitude waterfowl from the Himalayas and the Andes: bar-headed goose (*Anser indicus*) and Andean goose (*Chloephaga melanoptera*). *Molecular Phylogenetics and Evolution* 56, 649-658.
- Bulgarella M, Sorenson MD, Peters JL, Wilson RE, McCracken KG (2010) Phylogenetic relationships of *Amazonetta*, *Specularnas*, *Lophonetta*, and *Tachyeres*: four morphologically divergent duck genera endemic to South America. *Journal of Avian Biology* 41, 186-199.
- McCracken KG, Barger CP, Bulgarella M, Johnson KP, Sonsthagen SA, Trucco J, Valqui TH, Wilson RE, Winker K, Sorenson MD (2009) Parallel evolution in the major hemoglobin genes of eight species of Andean waterfowl. *Molecular Ecology* 18, 3992-4005.
- Krüger O, Sorenson MD, Davies NB (2009) Does coevolution promote species richness in parasitic cuckoos? *Proceedings of the Royal Society of London, Series B* 276, 3871-3879.
- Njabo KY, Sorenson MD (2009) Origin of Bannerman's turaco in relation to historical climate change and the distribution of West African montane forests. *Ostrich: Journal of African Ornithology* 80, 1-7.
- Campbell BC, Gray PB, Eisenberg DTA, Ellison P, Sorenson MD (2009) Androgen receptor CAG repeats and body composition among Ariaal men. *International Journal of Andrology* 32, 140-148.
- Balakrishnan CN, Sefc KM, Sorenson MD (2009) Incomplete reproductive isolation following host shift in brood parasitic indigobirds. *Proceedings of the Royal Society of London, Series B* 276, 219-228.
- Harrigan RJ, Mazza ME, Sorenson MD (2008) Computation versus cloning: evaluation of two methods for haplotype determination. *Molecular Ecology Resources* 8, 1239-1248.
- Muñoz-Fuentes V, Green AJ, Sorenson MD (2008) Comparing the genetics of wild and captive populations of white-headed ducks *Oxyura leucocephala*: consequences for recovery programmes. *Ibis* 150, 807-815.
- Njabo KY, Bowie RCK, Sorenson MD (2008) Phylogeny, biogeography and taxonomy of the African wattle-eyes (Aves: Passeriformes: Platysteiridae). *Molecular Phylogenetics and Evolution* 48, 136-149.
- Eisenberg DTA, Campbell B, Gray PB, Sorenson MD (2008) Dopamine receptor genetic polymorphisms and body composition in undernourished pastoralists: An exploration of nutrition indices among nomadic and recently settled Ariaal men of northern Kenya. *BMC Evolutionary Biology* 8, 173.

## PUBLICATIONS (CONT.)

- Brown JW, Rest JS, García-Moreno J, Sorenson MD, Mindell DP (2008) Strong mitochondrial DNA support for a Cretaceous origin of modern avian lineages. *BMC Biology* 6, 6.
- Chilton G, Sorenson MD (2007) Genetic identification of eggs purportedly from the extinct Labrador duck. *The Auk* 124, 962-968.
- Sefc KM, Payne RB, Sorenson MD (2007) Single base errors in PCR products from avian museum specimens. *Conservation Genetics* 8, 879-884.
- Krüger O, Davies NB, Sorenson MD (2007) The evolution of sexual dimorphism in parasitic cuckoos: sexual selection or coevolution? *Proceedings of the Royal Society of London, Series B* 274, 1553-1560.
- Brennan PLR, Prum RO, McCracken KG, Sorenson MD, Wilson RE, Birkhead TR (2007) Coevolution of male and female genital morphology in waterfowl. *PLoS ONE* 2, e418.
- Payne RB, Sorenson MD (2007) Integrative systematics at the species level: plumage, songs and molecular phylogeny of quail-finch *Oryzospiza*. *Bulletin of the British Ornithological Club* 127, 4-26.
- Muñoz-Fuentes V, Vilà C, Green AJ, Negro JJ, Sorenson MD (2007) Hybridization between white-headed ducks and introduced ruddy ducks in Spain. *Molecular Ecology* 16, 629-638.
- Sefc KM, Payne RB, Sorenson MD (2007) Genetic differentiation after founder events: an evaluation of  $F_{ST}$  estimators with empirical and simulated data. *Evolutionary Ecology Research* 9, 21-39.
- Balakrishnan CN, Sorenson MD (2007) Dispersal ecology versus host specialization as determinants of ectoparasite distribution in brood parasitic indigobirds and their estrildid finch hosts. *Molecular Ecology* 16, 217-229.
- Muñoz-Fuentes V, Green AJ, Sorenson MD, Negro JJ, Vilà C (2006) The ruddy duck *Oxyura jamaicensis* in Europe: natural colonisation or human introduction? *Molecular Ecology* 15, 1441-1454.
- Balakrishnan CN, Sorenson MD (2006) Song discrimination suggests premating isolation among sympatric indigobird species and host races. *Behavioral Ecology* 17, 473-478.
- Barlow CR, Payne RB, Payne LL, Sorenson MD (2006) Sierra Leone prinia *Schistolais leontica* in the Fouta Djallon of Guinea, its song, distribution and taxonomic status. *Bulletin of the African Bird Club* 13, 45-48.
- Muñoz-Fuentes V, Green AJ, Negro JJ, Sorenson MD (2005) Population structure and loss of genetic diversity in the endangered white-headed duck, *Oxyura leucocephala*. *Conservation Genetics* 6, 999-1015.
- Kulikova IV, Drovetski SV, Gibson DD, Harrigan RJ, Rohwer S, Sorenson MD, Winker K, Zhuravlev YN, McCracken KG (2005) Phylogeography of the mallard (*Anas platyrhynchos*): hybridization, dispersal, and lineage sorting contribute to complex geographic structure. *The Auk* 122, 949-965.
- Edwards SV, Kingan SB, Calkins JD, Balakrishnan CN, Jennings WB, Swanson WJ, Sorenson MD (2005) Speciation in birds: genes, geography, and sexual selection. *Proceedings of the National Academy of Science USA* 102, 6550-6557.
- Sefc KM, Payne RB, Sorenson MD (2005) Genetic continuity of brood parasitic indigobird species in space and time. *Molecular Ecology* 14, 1407-1419.
- Sorenson MD, Payne RB (2005) A molecular genetic analysis of cuckoo phylogeny. Pp. 68-94 in R.B. Payne. *Bird Families of the World: Cuckoos*. Oxford University Press.
- McCracken KG, Sorenson MD (2005) Is homoplasy or lineage sorting the source of incongruent mtDNA and nuclear gene trees in the stiff-tailed ducks (*Nomonyx-Oxyura*)? *Systematic Biology* 54, 35-55.
- Payne RB, Barlow CR, Balakrishnan CN, Sorenson MD (2005) Song mimicry of black-bellied firefinch *Lagonosticta rara* and other finches by brood-parasitic indigobirds *Vidua camerunensis* in West Africa. *The Ibis* 147, 130-143.

## PUBLICATIONS (CONT.)

- Cracraft J, Barker FK, Braun M, Harshman J, Dyke GJ, Feinstein J, Stanley S, Cibois A, Schikler P, Beresford P, García-Moreno J, Sorenson MD, Yuri T, Mindell DP (2004) Phylogenetic relationships among modern birds (Neornithes): toward an avian tree of life. Pp. 468-489 in Cracraft J, Donoghue MJ, eds. *Assembling the Tree of Life*. Oxford University Press, New York.
- Payne RB, Sorenson MD (2004) Behavioral and genetic identification of a hybrid *Vidua*: maternal origin and mate choice in a brood-parasitic finch. *The Auk* 121, 156-161.
- Sorenson MD, Balakrishnan CN, Payne RB (2004) Clade-limited colonization in brood parasitic finches (*Vidua* spp.). *Systematic Biology* 53, 140-153.
- Sefc KM, Payne RB, Sorenson MD (2003) Microsatellite amplification from museum feather samples: the effects of fragment size and template concentration on genotyping errors. *The Auk* 120, 982-989.
- Ramon ML, Lobel PS, Sorenson MD (2003) Lack of mitochondrial genetic structure in hamlets (*Hypoplectrus* spp.): recent speciation or ongoing hybridization? *Molecular Ecology* 12, 2975-1980.
- Payne RB, Sorenson MD (2003) Museum collections as sources of genetic data. In G. Rheinwald, ed. *Bird Collections in Europe: the Challenge of Mutual Cooperation*. *Bonner Zoologische Beiträge* 51 (2002), 97-104.
- Sorenson MD, Oneal E, García-Moreno J, Mindell DP (2003) More taxa, more characters: the hoatzin problem is still unresolved. *Molecular Biology and Evolution* 20, 1484-1499.
- Sorenson MD, Sefc KM, Payne RB (2003) Speciation by host switch in brood parasitic indigobirds. *Nature* 424, 928-931.
- García-Moreno J, Sorenson MD, Mindell DP (2003) Congruent avian phylogenies inferred from mitochondrial and nuclear DNA sequences. *Journal of Molecular Evolution* 57, 27-37.
- Sefc KM, Payne RB, Sorenson MD (2003) Phylogenetic relationships of African sunbird-like warblers: moho *Hypergerus atriceps*, green hylia *Hylia prasina* and tit-hylia *Pholidornis rusbieae*. *The Ostrich* 74, 8-17.
- Balakrishnan CN, Monfort SL, Gaur A, Singh L, Sorenson MD (2003) Phylogeography and conservation genetics of Eld's Deer (*Cervus eldi*). *Molecular Ecology* 12, 1-10.
- Sorenson MD, Payne RB (2002) Molecular genetic perspectives on avian brood parasitism. *Integrative and Comparative Biology* 142, 388-400.
- Payne RB, Hustler K, Sternstedt R, Sefc KM, Sorenson MD (2002) Behavioural and genetic evidence of a recent population switch to a novel host species in brood parasitic indigobirds *Vidua chalybeata*. *Ibis* 144, 373-383.
- Arnold TW, Anderson MG, Sorenson MD, Emery RB (2002) Survival and philopatry of female redheads breeding in southwestern Manitoba. *Journal of Wildlife Management* 66, 162-169.
- Paxinos EE, James HF, Olson SL, Sorenson MD, Jackson J, Fleischer RC (2002) MtDNA from fossils reveals a radiation of Hawaiian geese recently derived from the Canada goose (*Branta canadensis*). *Proceedings of the National Academy of Science USA* 99, 1399-1404.
- Sorenson MD, Payne RB (2001) A single, ancient origin of obligate brood parasitism in African finches: implications for host-parasite coevolution. *Evolution* 55, 2550-2567.
- Sefc KM, Payne RB, Sorenson MD (2001) Characterization of microsatellite loci in village indigobirds *Vidua chalybeata* and cross-species amplification in estrildid and ploceid finches. *Molecular Ecology Notes* 1, 252-254.
- Cao Y, Sorenson MD, Kumazawa Y, Mindell DP, Hasegawa M (2000) Phylogenetic position of turtles among amniotes: evidence from mitochondrial and nuclear genes. *Gene* 259, 139-148.
- Gibbs HL, Sorenson MD, Marchetti K, Brooke ML, Davies NB, Nakamura H (2000) Genetic evidence for female host races of the common cuckoo. *Nature* 407, 183-186.



## PUBLICATIONS (CONT.)

- McCracken KG, Harshman J, Sorenson MD, Johnson KP (2000) Are ruddy ducks and white-headed ducks the same species? *British Birds* 93, 394-398.
- Johnson KP, McKinney F, Wilson R, Sorenson MD (2000) The evolution of post-copulatory displays in dabbling ducks (Anatini): a phylogenetic perspective. *Animal Behaviour* 59, 953-963.
- Payne RB, Payne LL, Woods JL, Sorenson MD (2000) Imprinting and the origin of parasite-host species associations in female brood parasitic indigobirds, *Vidua chalybeata*. *Animal Behaviour* 59, 69-81.
- Sorenson MD, Cooper A, Paxinos E, Quinn TW, James HF, Olson SL, Fleischer RC (1999) Relationships of the extinct moa-nalos, flightless Hawaiian waterfowl, based on ancient DNA. *Proceedings of the Royal Society of London, Series B* 266, 2187-2193.
- Sorenson MD, Ast JC, Dimcheff DE, Yuri T, Mindell DP (1999) Primers for a PCR-based approach to mitochondrial genome sequencing in birds and other vertebrates. *Molecular Phylogenetics and Evolution* 12, 105-114.
- Johnson KP, Sorenson MD (1999) Phylogeny and biogeography of the dabbling ducks (Genus: *Anas*): A comparison of molecular and morphological evidence. *The Auk* 116, 792-805.
- Johnson KP, McKinney F, Sorenson MD (1999) Phylogenetic constraint on male parental care in the dabbling ducks. *Proceedings of the Royal Society of London, Series B* 266, 759-763.
- Mindell DP, Sorenson MD, Dimcheff DE, Hasegawa M, Yuri T (1999) Interordinal relationships of birds and other reptiles based on whole mitochondrial genomes. *Systematic Biology* 48, 138-152.
- Mindell DP, Sorenson MD, Dimcheff DE (1998) An extra nucleotide is not translated in mitochondrial ND3 of some birds and turtles. *Molecular Biology and Evolution* 15, 1568-1571.
- Mindell DP, Sorenson MD, Dimcheff DE (1998) Multiple independent origins of mitochondrial gene order in birds. *Proceedings of the National Academy of Science USA* 95, 10693-10697.
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- Sorenson MD (1998) Patterns of parasitic egg laying and typical nesting in redhead and canvasback ducks. Pp. 357-375 in Rothstein SI, Robinson SK, eds. *Parasitic birds and their hosts*. Oxford University Press: New York.
- Sorenson MD, Quinn TW (1998) Numts: A challenge for avian systematics and population biology. *The Auk* 115, 214-221.
- Young HG, Sorenson MD, Johnson KJ (1997) A description of the Madagascar teal *Anas bernieri* and examination of relationships with the grey teal *A. gracilis*. *Wildfowl* 48, 174-180.
- Worthy TH, Holdaway RN, Sorenson MD, Cooper AC (1997) Description of the first complete skeleton of *Cnemiornis calcitrans* (Aves: Anatidae), and a reassessment of the relationships of *Cnemiornis*. *Journal of Zoology* (London) 243, 695-723.
- Mindell DP, Sorenson MD, Huddleston CJ, Miranda H, Knight A, Sawchuk SJ, Yuri T (1997) Phylogenetic relationships among and within select avian orders based on mitochondrial DNA. Pp. 213-247 in Mindell DP, ed. *Avian Molecular Evolution and Systematics*. Academic Press: New York.
- Sorenson MD (1997) Effects of intra- and interspecific brood parasitism on a precocial host, the canvasback, *Aythya valisineria*. *Behavioral Ecology* 8, 153-161.
- Sorenson MD, Fleischer RC (1996) Multiple independent transpositions of mitochondrial DNA control region sequences to the nucleus. *Proceedings of the National Academy of Science USA* 93, 15239-15243.
- Cooper A, Rhymer JM, James HF, Olson SL, McIntosh CE, Sorenson MD, Fleischer RC (1996) Ancient DNA and island endemics. *Nature* 381, 484.

## PUBLICATIONS (CONT.)

- Arnold TW, Anderson MG, Emery RB, Sorenson MD, de Sbrino C (1995) The effect of late-incubation body mass on reproductive success of canvasbacks and redheads. *The Condor* 97, 953-962.
- Sorenson MD (1995) Evidence of conspecific nest parasitism and egg discrimination in the sora. *The Condor* 97, 819-821.
- Arnold TW, Sorenson MD, Rotella JJ (1993) Relative success of overwater and upland mallard nests in southwestern Manitoba. *Journal of Wildlife Management* 57, 578-581.
- Sorenson MD (1993) Parasitic egg laying in canvasbacks: frequency, success and individual behavior. *The Auk* 110, 57-69.
- Sorenson MD (1992) Comment: Why is conspecific nest parasitism more common in waterfowl than in other birds? *Canadian Journal of Zoology* 70, 1856-1858.
- Sorenson MD (1991) The functional significance of parasitic egg laying and typical nesting in redhead ducks: an analysis of individual behaviour. *Animal Behaviour* 42, 771-796.
- Sorenson MD (1990) Parasitic egg laying in redhead and canvasback ducks. PhD Thesis, University of Minnesota: Minneapolis.
- Sorenson MD (1989) Effects of neck-collar radio transmitters on female redhead ducks. *Journal of Field Ornithology* 60, 523-528.
- Arnold TW, Sorenson MD (1988) A record early season for marsh-breeding birds in southwestern Manitoba. *Blue Jay* 46, 133-135.

## COMPUTER PROGRAM

- Sorenson MD, Franzosa EA (2007) *TreeRot*, version 3. Boston University, Boston, MA. (Available at: <http://people.bu.edu/msoren/TreeRot>)
- Sorenson MD (1999) *TreeRot*, version 2. Boston University, Boston, MA.
- Sorenson MD (1996) *TreeRot*. University of Michigan, Ann Arbor.

This program generates constraint statements that aid in the determination of support indices in phylogenetic analysis. Systematists have used the program extensively for analyses of both molecular and morphological data. The three versions of the program have been cited at least **1188** times.

## POPULAR ARTICLES

- Payne RB, Sorenson MD (2006) Song lines. *NATURAL HISTORY* 115(7): 41 (September 2006).
- Sorenson MD (1992) The parasitic tactics of redhead ducks. *ANIMA: Magazine of Natural History*. No. 237: 78-81 (June 1992). Heibonsha Limited, Publishers: Tokyo.
- Sorenson MD (1989) Brood parasitism in the redhead duck. *IMPRINT* 6(4): 4-5. James Ford Bell Museum of Natural History: Minneapolis.

## MANUSCRIPT/PROPOSAL REVIEWS

*Acta Zoologica Sinica*  
*American Naturalist*  
*Animal Behaviour*  
*Animal Conservation*

*The Auk: An International Journal of Ornithology*  
*Avian Conservation & Ecology*  
*Behavioral Ecology*

*Behavioral Ecology and Sociobiology*  
*Biological Journal of the Linnean Society*  
*Biology Letters*  
*Bird Behavior*

*BMC Evolutionary Biology*  
*Canadian Journal of Zoology*  
*Cladistics*  
*Climatic Change*  
*The Condor*  
*Conservation Genetics*  
*Ecology*  
*Emu: Austral Ornithology*  
*Ethology*  
*Evolution*  
*Evolutionary Ecology*  
*Genetics*  
*Genome*  
*Hormones and Behavior*  
*The Ibis: The International Journal of Avian Science*  
*Journal of Avian Biology*  
*Journal of Biogeography*  
*Journal of Biological Systems*  
*Journal of Experimental Biology*  
*Journal of Field Ornithology*  
*Journal of Great Lakes Research*  
*Journal of Heredity*

*Journal of Theoretical Biology*  
*Journal of Wildlife Management*  
*Journal of Zoological Systematics and Evolutionary Research*  
*Mitochondrial DNA*  
*Molecular Biology and Evolution*  
*Molecular Ecology*  
*Molecular Ecology Resources*  
*Molecular Phylogenetics and Evolution*  
*Nature*  
*Nature Ecology & Evolution*  
*PLoS Biology*  
*PLoS Genetics*  
*Prairie Naturalist*  
*Proceedings of the National Academy of Sciences USA*  
*Proceedings of the Royal Society of London B, Biological Sciences*  
*Quarterly Review of Biology*  
*Science*  
*Scopus (East African Journal of Ornithology)*

*Systematic Biology*  
*Trends in Ecology and Evolution*  
*Wilson Bulletin*  
*Zoological Studies*  
  
 The American Ornithologists Union  
 Chilean National Fund for Scientific & Technological Development (FONDECYT)  
 Delta Waterfowl & Wetlands Research Station  
 Finnish Academy of Science  
 FWF (Austrian Science Fund)  
 Marsden Fund, Royal Society of New Zealand  
 National Geographic Society  
 National Science Foundation  
 Netherlands Organisation for Scientific Research (NWO)

## INVITED CONFERENCE PRESENTATIONS

Conference Plenary, American Ornithology 2017: Annual Meeting of the American Ornithological Society and Society of Canadian Ornithologists, East Lansing, MI, August 2017  
 Frontiers in Phylogenetics Fall Symposium: Methods and Analysis of Coevolution Across Scales: From Within Genomes to Disease and Environments, National Museum of Natural History, September 2015  
 Symposium: Genomic Approaches to Understanding Avian Speciation. AOU, COS, SCO Joint Meeting, Estes Park, Colorado, September 2014 (presentation by PhD student Katherine Stryjewski)  
 Symposium: Avian Diversification in the Old World Tropics. American Ornithologists' Union, Chicago, Illinois, August 2013  
 International Symposium on Avian Brood Parasitism, Haikou, Hainan, China, November 2012  
 Symposium: Speciation. American Ornithologists' Union, Laramie, Wyoming, August 2007  
 Symposium: Phylogenies and Behaviour. Association for the Study of Animal Behaviour, London, December 2004  
 Symposium: Problems and Opportunities in Avian Deep Phylogenetics. 3<sup>rd</sup> North American Ornithological Conference, New Orleans LA. September 2002  
 Symposium: Untangling Coevolutionary History. Society for Systematic Biology, Champaign-Urbana, Illinois, June 2002  
 Symposium: Living Together: the Dynamics of Symbiotic Interactions. Society for Integrative and Comparative Biology, Chicago, Illinois, January 2001  
 Symposium: Coevolution in Brood Parasitism, 22<sup>nd</sup> International Ethological Conference, Nagano, Japan, August, 1991  
 Symposium: Parasitic Birds and Their Hosts, American Ornithologists' Union, Los Angeles, California, June, 1990

## INVITED LECTURES

Nuttall Ornithological Club, Cambridge, MA, February 2017  
CIBIO - Centro de Investigação em Biodiversidade e Recursos Genéticos, Universidade do Porto, Portugal, December 2014  
Hoslett Memorial Lecture, Luther College, Decorah, IA, October 2014  
Department of Biological Sciences, Wright State University, October 2013  
Department of Ecology and Evolution, Stony Brook University, December 2012  
Guest Lecture, OEB 190, Biology and Diversity of Birds, Harvard University, March 2012  
Department of Evolution Ecology and Organismal Biology, Ohio State University, April 2011  
31<sup>st</sup> Annual Darwin Festival, Salem State College, Salem, MA, February 2010  
Department of Ecology and Evolutionary Biology, University of California Santa Cruz, September 2009  
Department of Ecology and Evolutionary Biology, University of California Los Angeles, September 2009  
California Academy of Sciences, San Francisco, September 2009  
Museum of Vertebrate Zoology, University of California Berkeley, September 2009  
National Geographic Society, Committee for Research and Exploration, Washington D.C., July 2009  
Institute for Genomic Biology, University of Illinois at Urbana-Champaign, May 2009  
Field Museum of Natural History, Chicago, IL, May 2009  
Guest Lecture, OEB 190, Biology and Diversity of Birds, Harvard University, April 2009  
“BioMixer”, Department of Biology, Boston University, December 2008  
Guest Lecture, OEB 190, Biology and Diversity of Birds, Harvard University, April 2007  
Nuttall Ornithological Club, Cambridge, MA, April 2006  
Department of Evolution, Genomics and Systematics, Uppsala University, Sweden, March 2006  
Institute of Zoology, Karl Franzens University, Graz, Austria, March 2006  
Edwards Lab, Department of Ornithology, Museum of Comparative Zoology, Harvard University, May 2005  
Bauer Center for Genomics Research, Harvard University, May 2005  
Guest Lecture, OEB 190, Biology and Diversity of Birds, Harvard University April 2005  
Department of Biology, University of Massachusetts Amherst, April 2005  
Department of Organismal and Evolutionary Biology, Harvard University, November 2004  
Boston University Marine Program, Woods Hole, MA, October 2003  
Department of Biology, Tufts University, September 2003  
Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, January 2003  
Department of Biology, University of Missouri St. Louis, October 2002  
Institute of Arctic Biology, University of Alaska Fairbanks, September 2002  
Department of Biology and Wildlife, University of Alaska Fairbanks, September 2002  
Department of Zoology, University of New Hampshire, Durham, November 2001  
Plenary: Delta Student Seminars, Delta Waterfowl Foundation, Portage la Prairie, Manitoba, July 2001  
Institute for Waterfowl and Wetlands Research, Ducks Unlimited, Oak Hammock, Manitoba, July 2001  
Museum of Zoology, University of Michigan, Ann Arbor, April 2001

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## INVITED LECTURES (CONT.)

Department of Biology, University of Massachusetts, Boston, Massachusetts, October 2000  
Conservation and Research Center, Front Royal, Virginia, September 2000  
U.S. National Zoological Park, Smithsonian Institution, September 2000  
Marine Biological Laboratory, Woods Hole, Massachusetts, May 2000  
Department of Ecology & Evolutionary Biology, Brown University, Providence, Rhode Island, April 2000  
Laboratory of Ornithology, Cornell University, Ithaca, New York, February 2000  
Section of Ecology and Evolutionary Biology, Cornell University, Ithaca, New York, February 2000  
American Museum of Natural History, New York, December 1999  
Tiputini Biodiversity Station, Ecuador, March 1999  
Department of Biology, SUNY-Albany, Albany, New York, April 1997  
Department of Biology, St. Olaf College, Northfield, Minnesota, March 1997  
Department of Biology, Boston University, February 1997  
Department of Biology, University of California Santa Barbara, February 1997  
Systematics Association of Michigan, Ann Arbor, December 1996  
Delta Waterfowl and Wetlands Research Station, Manitoba, Canada, May 1996  
Department of Biology, Illinois State University, Normal, February 1996  
Museum of Zoology, University of Michigan, Ann Arbor, January 1995  
Department of Biology, University of Pennsylvania, Philadelphia, October 1994  
Department of Zoological Research, U. S. National Zoological Park, Washington, D.C., September 1994  
Department of Biology, University of Maryland, College Park, April 1993  
Appalachian Environmental Lab, University of Maryland, Frostburg, February, 1991  
Department of Zoological Research, U. S. National Zoological Park, Washington, D.C., November, 1990  
Canvasback Research Coordination Meeting, USFWS, Patuxent Wildlife Research Center, Laurel, Maryland, April 1990  
Biology Department, Gustavus Adolphus College, St. Peter, Minnesota, April, 1989  
Biology Colloquium, Luther College, Decorah, Iowa, March 1988

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## RECENT PROFESSIONAL PRESENTATIONS (2011–2017)

**Sorenson, M.D.** Birds behaving badly and the genetics of speciation. American Ornithology 2017, East Lansing, MI, August 2017.  
**Sorenson, M.D.,** Tong, W. & C.N. Spottiswoode. Contrasting patterns of genetic divergence in obligate brood parasites: implications for the genetics of host-specific adaptation. North American Ornithological Conference, Washington, DC, August 2016.  
**Stryjewski, K.F. & M.D. Sorenson.** Islands of divergence in an extraordinary radiation of finches (*Lonchura* spp.) from Papua New Guinea. AOU, COS, SCO Joint Meeting, Estes Park, CO, September 2014.  
**DaCosta, J.M.,** J.B. Dongmo, C.N. Balakrishnan & M.D. Sorenson. ddRAD-seq analyses of population structure in brood parasitic indigobirds (*Vidua* spp.). Society for the Study of Evolution, Raleigh, North Carolina, June 2014.

## RECENT PROFESSIONAL PRESENTATIONS (2011–2017)

- Lavretsky, P.,** J.M. DaCosta, B. Hernández-Baños, A. Engilis, M.D. Sorenson & J.L. Peters. Speciation genomics and a role for the sex chromosome in the mallard and Mexican duck. Society for the Study of Evolution, Raleigh, North Carolina, June 2014.
- Lansverk, A.,** C.N. Balakrishnan, D. Newhouse, M.D. Sorenson & M.S. Brewer. Accelerated molecular evolution in brood parasitic finches: demography or selection? Society for the Study of Evolution, Raleigh, North Carolina, June 2014.
- Sorenson, M.D.,** J.M. DaCosta, K.F. Stryjewski, C.N. Balakrishnan & C.N. Spottiswoode. Contrasting patterns of divergence and diversification in African brood parasites. Symposium: Avian Diversification in the Old World Tropics. American Ornithologist's Union, Chicago, August 2013.
- Sorenson, M.D.,** J.M. DaCosta, E. Kuras, K.F. Stryjewski, C.N. Balakrishnan, N. Butler & C.N. Spottiswoode. Extraordinarily divergent, host-specific mtDNA lineages in greater honeyguide and cuckoo finch: implications for the genetics of host-specific adaptation. International Symposium on Avian Brood Parasitism, Hainan, China, November 2012.
- DaCosta, J.M.** & M.D. Sorenson. RAD phylogenetics: harnessing next-generation sequencing for molecular systematics of parasitic finches (Viduidae). North American Ornithological Conference, Vancouver, BC, August 2012.
- Stryjewski, K.F.** & M.D. Sorenson. Speciation genomics of an extraordinary avian radiation, the *Lonchura munias* in Papua New Guinea. North American Ornithological Conference, Vancouver, BC, August 2012.
- Sorenson, M.D.,** J.M. DaCosta, E. Kuras, K.F. Stryjewski, C.N. Balakrishnan, N. Butler & C.N. Spottiswoode. Extraordinarily divergent, host-specific mtDNA lineages in greater honeyguide and cuckoo finch: implications for the genetics of host-specific adaptation. North American Ornithological Conference, Vancouver, BC, August 2012.
- Cohen, K.,** T.H. Kunz & M.D. Sorenson. Characterizing major histocompatibility complex Class II diversity in *Myotis lucifugus*. 42<sup>nd</sup> Annual Meeting of the North American Society for Bat Research, San Juan, Puerto Rico, October 2012.
- Collins Poythress, J.,** A.P. Wilder, T.H. Kunz & M.D. Sorenson. Characterizing population structure of *Myotis lucifugus* in the eastern United States to predict geographic spread of white-nose syndrome. 42<sup>nd</sup> Annual Meeting of the North American Society for Bat Research, San Juan, Puerto Rico, October 2012.
- Wilder, A.P.,** T.H. Kunz & M.D. Sorenson. Phylogeography of *Myotis lucifugus* using high throughput sequencing: implications for disease spread and conservation of diversity. 42<sup>nd</sup> Annual Meeting of the North American Society for Bat Research, San Juan, Puerto Rico, October 2012.
- Wilder, A.P.,** T.H. Kunz & M.D. Sorenson. Does diversifying selection in big brown bats (*Eptesicus fuscus*) maintain phylogeographic structure at  $\beta$ -globin loci? 41<sup>st</sup> Annual Meeting of the North American Society for Bat Research, Toronto, ON, October 2011.