

# **J. DYLAN MADDOX**

Research Associate  
Field Museum of Natural History  
Chicago IL

## **EDUCATION**

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- 2009 Ph.D. University of Illinois, Urbana-Champaign IL  
Ecology, Evolution, and Conservation Biology
- 2003 M.S. University of Illinois, Urbana-Champaign IL  
Natural Resources and Environmental Sciences
- 1998 B.S. Eastern Illinois University, Charleston IL  
Zoology

## **POSITIONS HELD**

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- 2016-pre Adjunct Lecturer, Department of Natural Resources and Environmental Sciences,  
University of Illinois, Urbana-Champaign
- 2014-pres Adjunct Faculty  
American Public University System, Charles Town WV
- 2012-pres Research Associate  
The Field Museum of Natural History, Chicago IL
- 2012-14 NSF International Postdoctoral Fellow  
El Centro de Investigaciones de Recursos Naturales de la Amazonía  
Universidad Nacional de la Amazonía Peruana, Iquitos, Perú
- 2011-12 Postdoctoral Appointment  
Illinois Natural History Survey, Univ. of Illinois, Urbana-Champaign
- 2011 Postdoctoral Appointment  
Florida Museum of Natural History, Univ. of Florida
- 2010 Postdoctoral Appointment  
Department of Ecology and Evolution, Univ. of Chicago

## **RESEARCH EXPERIENCE**

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- 2012-pres. Research Associate, Field Museum of Natural History, Chicago
- 2012-14 NSF Postdoctoral Fellow, Universidad Nacional de la Amazonía Peruana
- 2011-12 Postdoctoral Research, Illinois Natural History Survey, Champaign IL
- 2011 Postdoctoral Research, Florida Museum of Natural History
- 2010 Postdoctoral Research, Department of Ecology and Evolution, Univ. of Chicago
- 2003-09 Ph.D. Thesis Research, Univ. of Illinois
- 2001-03 M.S. Thesis Research, Univ. of Illinois
- 1999 Crew Leader, U. S. Geological Survey, Northern Prairies, Crookston MN
- 1998 Field Assistant, HawkWatch International, Salt Lake City UT
- 1998 Undergraduate Research Project, Eastern Illinois Univ., Charleston IL

- 1996-97 Field Assistant, Eastern Illinois Univ., Charleston IL  
 1993-95 Lab Technician, Illinois Natural History Survey, Champaign IL

## RESEARCH GRANTS

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- 2016-18 Fondo Nacional de Desarrollo Científico y Tecnológico, Perú (\$118,000, co-PI)  
 2012-14 National Science Foundation International Research Fellowship (\$144,182)  
 2006 American Ornithologists' Union Research Award. (\$1800)  
 2005-06 Program in Ecology, Evolution and Conservation Biology Summer Research Award, Univ. of Illinois (\$1550)  
 2004 Berryman Institute East, Mississippi State Univ. (\$4979)  
 2000-01 Kendeigh Memorial Research Fund, Champaign County Audubon Society (\$1000)  
 1997 TriBeta Research Foundation Grant (\$800)  
 1997 Undergraduate Research Council Grant, Eastern Illinois Univ. (\$750)

## AWARDS AND FELLOWSHIPS

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- 2010 Student Travel Award, COS/AOU/SCO (\$350)  
 2009 Proctor and Gamble Doctoral Student Research Award, Univ. of Illinois (\$2000)  
 2008-09 NSF GK-12 Teaching Fellowship, Univ. of Illinois (\$30,000)  
 2007 John G. & Evelyn Hartman Heiligenstein Outstanding TA Award, Univ. of Illinois (\$300)  
 2005-06 List of teachers ranked as excellent by their students, Univ. of Illinois  
 2004-07 Program in Ecology, Evolution and Conservation Biology Travel Award, Univ. of Illinois (\$1500)  
 2005-07 Program in Ecology, Evolution and Conservation Biology Fellowship, Univ. of Illinois, Spring Semesters  
 2005-06 Graduate College Conference Travel Grant, Univ. of Illinois (\$1075)  
 2005 Marcia Brady Tucker Travel Award, American Ornithologist's Union (\$370)  
 2005 NSF Undergraduate Mentoring in Environmental Biology Graduate Coordinator, Univ. of Illinois Fellowship, Spring  
 2003 List of teachers ranked as excellent by their students, Univ. of Illinois  
 1999 Frank G. Brooks Award (best presentation), TriBeta District Convention, Naperville, IL  
 1998 Errett and Mazie Warner Award in Zoology, Eastern Illinois Univ. (\$1333)  
 1997 Dr. Hugh C. Rawls Award, Eastern Illinois Univ. (\$270)  
 1996 Kenneth and Donelda Damann Aquatic Ecology Award, Eastern Illinois Univ. (\$750)

## PUBLICATIONS IN PRINT

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- Castro, J.C., **J.D. Maddox**, M. Cobos, D. Requena, M. Zimic, A. Bombarely, S.A. Imán, L.A. Cerdeira and A.E. Medina. 2015. De novo assembly and functional annotation of *Myrciaria dubia* fruit transcriptome reveals multiple metabolic pathways for L-ascorbic acid biosynthesis. **BMC Genomics** 16:997 DOI 10.1186/s12864-015-2225-6.  
 Castro, J.D., M. Cobos, **J.D. Maddox**, S.A. Imán, J. Torres, F. Guitérrez. 2015. Differential gene expression and enzyme activities of the D-mannose/L-galactose pathway influence L-ascorbic acid pool size in *Myrciaria dubia* camu camu. **Biologia Plantarum** 59:783-787.

- Maddox, J.D.**, and K.A. Feldheim. 2014. A cost-effective size standard for fragment analysis that maximizes throughput on five dye set platforms. **Conservation Genetics Resources** 6:5-7.
- Tarwater, C.E., J.D. Brawn, and **J.D. Maddox**. 2013. Low extra-pair paternity observed in a tropical bird despite ample opportunities for extra-pair mating. **Auk** 130:733-741.
- Maddox, J.D.**, and P.J. Weatherhead. 2012. Discrepancy between factors affecting nestling growth and survival and maternal success in Common Grackles. **Journal of Field Ornithology** 83:17-25.
- Tarwater, C.E., R.E. Ricklefs, **J.D. Maddox**, and J.D. Brawn. 2011. Survival until reproduction in a tropical bird: factors influencing survival and implications for life histories. **Ecology** 92:1271-1281.
- Maddox, J.D.**, and P.J. Weatherhead. 2010. Seasonal sex allocation by Common Grackles? Reply. **Ecology** 91:3424-3426.
- Maddox, J.D.**, and P.J. Weatherhead. 2009. Seasonal sex allocation by common grackles? Revisiting a foundational study. **Ecology** 90:3190-3196.
- Maddox, J.D.**, R.M. Bowden, and P.J. Weatherhead. 2008. Yolk testosterone and estradiol variation relative to clutch size, laying order and hatching asynchrony in common grackles. **Journal of Ornithology** 149:643-649.
- Maddox, J.D.**, and P.J. Weatherhead. 2008. Egg size variation in birds with asynchronous hatching: is bigger really better? **American Naturalist** 171:358-365.
- Weatherhead, P.J., K.E. Muma, **J.D. Maddox**, J.M. Knox, and K.W. Dufour. 2007. Morphology vs. molecules: sexing Red-winged Blackbird nestlings. **Journal of Field Ornithology** 78:428-435.
- Maddox, J.D.**, and P.J. Weatherhead. 2006. Nests without eggs: abandonment or cryptic predation? **Auk** 123: 135-140.
- Maddox, J.D.**, and S.K. Robinson. 2005. Loggerhead Shrike (*Lanius ludovicianus*). Conservation Assessment Report, USDA Forest Service, Eastern Region.
- Maddox, J.D.**, and R.N. Wiedenmann. 2005. Nesting of birds in wetlands containing purple loosestrife (*Lythrum salicaria*) and cattail (*Typha* spp.). **Natural Areas Journal** 25: 369-373.
- Maddox, J.D.**, and R.N. Wiedenmann. 2003. Arthropods associated with purple loosestrife in Illinois wetlands. **Great Lakes Entomologist** 36:99-104.
- Bollinger, E.K., and **J.D. Maddox**. 2000. A double-brooded Dickcissel. **The Prairie Naturalist** 71:253-255.
- Maddox, J.D.**, and E.K. Bollinger. 2000. Male Dickcissels feed nestlings in East-central Illinois. **Wilson Bulletin** 112:153-155.

## **PUBLICATIONS IN REVIEW/PREPARATION**

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- Sweet, A.D., **J.D. Maddox** and K.P. Johnson. Molecular phylogeny of small New World ground-doves (Aves: Peristerinae) indicates *Claravis* is paraphyletic and implies multiple plumage state transitions. *In review at Molecular Phylogenetics and Evolution*.
- Cobos, M., J.D. Paredes, **J.D. Maddox**, et al. Isolation and characterization of native microalgae from the Peruvian Amazon with potential for biodiesel production. *In review at ALGAL Research*.
- Cobos, M., J.D. Castro, H.N. Hieler, M.L. Guerrero, B. Jiu, J.B. Petterman, **J.D. Maddox**, J.D. Paredes, J.F. Marapara. Isolation and characterization of native microalgae from the Peruvian Amazon with potential for biodiesel production. *In review at Gene*.

**Maddox, J.D.**, J.D. Brawn, and C.E. Tarwater. Fine-scale genetic structure of a tropical understory insectivore: do tropical birds conform to temperate predictions? *In preparation for Molecular Ecology*.

Feldheim, K.A. and **J.D. Maddox**. Next generation sequencing techniques to screen a genomic library for microsatellite markers. *In preparation for Molecular Ecology Resources*.

## TEACHING EXPERIENCE

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- 2016-pres Adjunct Lecturer, University of Illinois  
 2014-pres Adjunct Faculty, American Public University System  
 2015 Instructor, *Microsatellite Short Course*, Universidad Nacional de la Amazonía Peruana, Iquitos, Perú  
 2014 Instructor, *R Short Course*, Universidad Nacional de la Amazonía Peruana, Iquitos, Perú  
 2012 Adjunct Instructor, *Biology I Laboratory*, North Central College, Naperville IL (Winter Term 2012)  
 2008-09 NSF GK-12 Teaching Fellow, Biology II, St. Joseph-Ogden High School, St. Joseph IL  
 2008 Teaching Assistant, Animal Behavior, Univ. of Illinois (Spring 2008)  
 2007 Teaching Assistant, *Statistical Ecology*, Univ. of Illinois (Fall 2007)  
 2005-06 Teaching Assistant, *Ecology*, Univ. of Illinois (Fall 2006)  
 2003 Teaching Assistant, *Ornithology*, Univ. of Illinois (Spring 2003)

## MENTORING EXPERIENCE

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- 2015 Scientific Advisor and Educator, DNA Residency Program, Field Museum  
 2012-14 Mentor for Latin American Undergraduate Theses, Universidad Nacional de la Amazonía  
 2005 National Science Foundation U.M.E.B. Graduate Coordinator, Univ. of Illinois  
 2001-09 Supervisor of Research Assistants, Univ. of Illinois  
 2005-06 Mentor for Undergraduate Honors Project, Univ. of Illinois

## INVITED PRESENTATIONS

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- 2012 Univ. of Arkansas, Fayetteville AR  
 2012 Universidad Nacional de la Amazonía Peruana, Iquitos Perú  
 2010 Maternal effects of brood reduction on Common Grackles. School of Biological Sciences, Illinois State Univ., Bloomington IL

## PRESENTATIONS AT SCIENTIFIC CONFERENCES

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- 2013 **Maddox, J.D.** and J.T. Wootton. Allen's rule and bird bills: an intraspecific approach using house sparrows. AOU/COS, Chicago, IL  
 2010 **Maddox, J.D.** and P.J. Weatherhead. Discordance between nestling and maternal success in common grackles. Association of Field Ornithologists, Ogden UT

- 2010 **Maddox, J.D.** and P.J. Weatherhead. Are all maternal effects functionally relevant when acting simultaneously? A test with common grackles. COS/AOU/SCO, San Diego CA
- 2009 **Maddox, J.D.** and P.J. Weatherhead. Maternal effects in Common Grackles, Program in Ecology, Evolution and Conservation Biology Seminar Series, Univ. of Illinois, Urbana IL
- 2008 **Maddox, J.D.** and P.J. Weatherhead. Replicating behavioral ecology field studies: a case study of sex allocation in Common Grackles. AOU/COS/SCO, Portland OR
- 2007 **Maddox, J.D.** and P.J. Weatherhead. Within- and among-clutch variation of yolk hormones in Common Grackles. American Ornithologists' Union, Larime WY
- 2006 **Maddox, J.D.** and P.J. Weatherhead. Overwhelming effects of asynchronous hatching on positive egg-size effects. North American Ornithological Conference, Veracruz, Mexico
- 2004 **Maddox, J.D.** and P.J. Weatherhead. Brood reduction in Common Grackles: a double-bet hedging strategy? American Ornithologists' Union, Québec City, Canada
- 2002 **Maddox, J.D.** and R.N. Wiedenmann. The effects of purple loosestrife (*Lythrum salicaria*) on wetland birds in northeastern Illinois, North American Ornithological Conference, New Orleans LA
- 1999 **Maddox, J.D.** and E.K. Bollinger. Male Dickcissels feed nestlings in East-central Illinois, TriBeta District Convention, North Central College, Naperville IL

### **PROFESSIONAL SERVICE AND COMMUNITY OUTREACH**

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- Councilor and Webmaster, Association of Field Ornithologists, 2009-2013
- Reviewer for: *Evolutionary Ecology* (2), *Functional Ecology* (1), *Behavioral Ecology and Sociobiology* (1), *Biological Journal of the Linnean Society* (1), *Journal of Field Ornithology* (2), *Journal of Ornithology* (2), *Naturwissenschaften* (1), *Southeastern Naturalist* (1)
- Coordinator, Graduate Students in Ecology and Evolutionary Biology Symposium, Univ. of Illinois
- Champaign County Audubon Society
- Ogden Grade School. 2<sup>nd</sup> and 4<sup>th</sup> grades. Bird facts
- Organizer and host of departmental seminars for A.V. Badyaev (Univ. of Arizona), T.E. Martin (Univ. of Montana), G.E. Hill (Auburn Univ.), and R. Montgomerie (Queen's Univ.)