Michael G. Harvey

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Department of Biological Sciences Museum of Zoology 2039 Ruthven Hall University of Michigan Ann Arbor, MI, 48109, USA Phone: 225-315-6687 E-mail: mgh272@gmail.com Website: www.mharvey.org Twitter: michaelgharvey

#### **EDUCATION:**

B. A., Biology Sep. 2004 – May 2008

College of Arts and Sciences

Cornell University

Concentration: Ecology and Evolutionary Biology

Ph.D., Biology Jan. 2010 – Dec. 2015

Dept. of Biological Sciences and Museum of Natural Science

Louisiana State University Advisor: Robb T. Brumfield

### **EXPERIENCE:**

National Science Foundation Postdoctoral Research Fellow Department of Biological Sciences and Museum of Zoology University of Michigan Jan. 2016 – present

## **PUBLICATIONS IN EVOLUTION AND GENOMICS:**

**Harvey, M. G.**, G. F. Seeholzer, B. T. Smith, D. L. Rabosky, A. M. Cuervo, J. T. Klicka, and R. T. Brumfield. In review. The rate of population differentiation predicts speciation rate in New World birds.

Smith, B. T., G. F. Seeholzer, **M. G. Harvey**, J. T. Klicka, A. M. Cuervo, and R. T. Brumfield. In review. A latitudinal intraspecific diversity gradient in birds.

**Harvey, M. G.**, B. T. Smith, T. C. Glenn, B. C. Fairloth, and R. T. Brumfield. In review. Sequence capture versus restriction side associated DNA sequencing for shallow systematics.

Zucker, M. R., **M. G. Harvey**, J. A. Oswald, A. Cuervo, E. Derryberry, and R. T. Brumfield. In review. The Mouse-colored Tyrannulet (*Phaeomyias murina*) is a species complex that includes the Cocos Flycatcher (*Nesotriccus ridgwayi*), an island form that underwent a population bottleneck.

Oswald, J. A., M. G. Harvey, R. C. Remsen, D. U. Foxworth, S. W. Cardiff, D. L. Dittmann, L. C. Megna, M. D. Carling, and R. T. Brumfield. In review. Willet be one species or two?: A genomic view of the evolutionary history of *Tringa semipalmata*.

Toews, D. P., L. Campagna, S. Taylor, C. Balakrishnan, D. Baldassarre, P. Deane-Coe, **M. G. Harvey**, D. Hooper, D. Irwin, C. Judy, N. Mason, J. McCormack, K. McCracken, C. Oliveros, R. Safran, E. Scordato, K. Stryjewski, A. Tigano, A. Uy, and B. Winger. 2016. Genomic approaches to understanding population divergence and speciation in birds. *Auk* 133: 13-30.

**Harvey, M. G.,** C. D. Judy, G. F. Seeholzer, J. M. Maley, G. R. Graves, and R. T. Brumfield. 2015. Similarity thresholds used in DNA sequence assembly from short reads can reduce the comparability of population histories across species. *PeerJ* 3: e895.

- **Harvey, M. G.** and R. T. Brumfield. 2015. Genomic variation in a widespread Neotropical bird (*Xenops minutus*) reveals divergence, population expansion, and gene flow. *Molecular Phylogenetics and Evolution* 83: 305-316.
- Smith, B. T., J. E. McCormack, A. M. Cuervo, M. J. Hickerson, A. Aleixo, C. D. Cadena, J. E. Pérez Eman, C. W. Burney, X. Xie, **M. G. Harvey**, B. C. Faircloth, T. C. Glenn, E. P. Derryberry, J. Prejean, S. Fields, and R. T. Brumfield. 2014. The drivers of tropical speciation. *Nature* 515: 406-409.
- Smith, B. T., **M. G. Harvey**, B. C. Faircloth, T. C. Glenn, and R. T. Brumfield. 2014. Target capture and massively parallel sequencing of ultraconserved elements (UCEs) for comparative studies at shallow evolutionary timescales. *Systematic Biology* 63: 83-95.
- Carstens, B. C., R. S. Brennan, V. Chua, C. V. Duffie, **M. G. Harvey**, R. A. Koch, C. D. McMahan, B. J. Nelson, C. E. Newman, J. D. Satler, G. F. Seeholzer, K. Posbic, D. C. Tank, and J. Sullivan. 2013. Model selection as a tool for phylogeographic inference: An example from the willow *Salix melanopsis*. *Molecular Ecology* 22: 4014-4028.
- McCormack, J. E., **M. G. Harvey**, B. C. Faircloth, N. G. Crawford, T. C. Glenn, and R. T. Brumfield. 2013. A phylogeny of birds based on over 1,500 loci collected by target enrichment and high-throughput sequencing. **PLoS** *One* 8: e54848.
- Faircloth, B. C., J. E. McCormack, N. G. Crawford, **M. G. Harvey**, R. T. Brumfield, and T. C. Glenn. 2012. Ultraconserved elements anchor thousands of genetic markers for target enrichment spanning multiple evolutionary timescales. *Systematic Biology* 61: 717-726.
- **Harvey, M. G.**, D. N. Bonter, L. M. Stenzler, and I. J. Lovette. 2006. A comparison of plucked feathers versus blood samples as DNA sources for molecular sexing. *Journal of Field Ornithology* 77: 136-140.

## PUBLICATIONS IN BIOGEOGRAPHY AND NATURAL HISTORY:

- Harvey, M. G., G. F. Seeholzer, D. Cáceres Apaza, B. M. Winger, J. G. Tello, F. Hernández Camacho, M. A. Aponte Justiniano, C. V. Duffie, S. Figueroa Ramírez, R. S. Terrill, C. E. Brown, L. Alza, G. A. Bravo, M. Combe, O. Custodio, A. Quiñones Zumaeta, A. Urbay Tello, W. A. Garcia Bravo, A. S. Savit, F. W. Pezo Ruiz, W. M. Mauck III, and O Barden. 2014. Avian Biogeography of an Amazonian headwater: The upper Ucayali River, Peru. *Wilson Journal of Ornithology* 126: 179-191.
- Terrill, R. S., M. A. Aponte Justiniano, **M. G. Harvey**, G. F. Seeholzer, and R. I. Strem. 2014. Notes on the avifauna of the Río Mamoré, Beni, Bolivia, with a description of the juvenile plumage of Unicolored Thrush (Turdus haplochrous)(Aves: Turdidae). *Occasional Papers of the LSU Museum of Natural Science* 82: 1-21.
- Harvey, M. G., D. F. Lane, J. Hite, R. S. Terrill, S. Figueroa Ramírez, B. T. Smith, J. Klicka, and W. Vargas Campos. 2014. Notes on bird species in bamboo in northern Madre de Dios, Peru including the first Peruvian record of Acre Tody-Tyrant (*Hemitriccus cohnhafti*). *Occasional Papers of the LSU Museum of Natural Science* 81: 1-38.
- Seeholzer, G. F., **M. G. Harvey**, B. M. Winger, D. Cáceres A, and J. D. Weckstein. 2012. A new species of barbet (Aves: Capitonidae) from the Cerros del Sira of central Peru. *Auk* 129: 551-559.
- **Harvey, M. G.**, B. M. Winger, G. F. Seeholzer, and D. Cáceres A.. 2011. Avifauna of the Gran Pajonal and southern Cerros del Sira, Peru. *Wilson Journal of Ornithology* 123: 289-315.
- **Harvey, M. G**. 2009. Sira Tanager (*Tangara phillipsi*), Neotropical Birds Online (T. S. Schulenberg, Editor). Ithaca: Cornell Lab of Ornithology.
- D. N. Bonter and **M. G. Harvey**. 2008. Winter survey data reveal range-wide decline in Evening Grosbeak populations. *Condor* 110: 376-381.

Lebbin, D. J., **M. G. Harvey**, T. C. Lenz, M. J. Andersen, and J. M. Ellis. 2007. Nocturnal migrants foraging at night by artificial light. *Wilson Journal of Ornithology* 119: 506-508.

**Harvey, M.** 2004. New Hampshire's first record of Little Stint (*Calidris minuta*). *New Hampshire Bird Records*. 22: 46-47.

# AWARDS AND GRANTS:

National Science Foundation Postdoctoral Research Fellowship (\$138,000) Louisiana State University College of Science Outstanding Dissertation Award (Society for the Study of Evolution Hamilton Award finalist (\$500) NSF/SSB Workshop in Model-based Molecular Systematics Travel Award (\$1,70 Mary Lou Applewhite Fellowship, Louisiana State University (\$11,250) American Ornithologist's Union Student Travel Award (\$375) American Ornithologist's Union Student Travel Award (\$500) Louisiana State University BioGrads Symposium Award (\$500) Louisiana State University BioGrads Symposium Award (\$500) Nuttall Ornithological Club Blake-Nuttall Award (\$2,500) Lewis and Clark Research Award (\$4,000) National Geographic Society Grant (\$20,000) American Ornithologist's Union Research Award (\$2,500) T. Vinton Holmes Award, Louisiana State University (\$500) National Science Foundation Doctoral Dissertation Improvement Grant (\$15,000) North American Ornithological Conference Travel Award (\$550) Virginia L. Mouw Award in Ornithology, Louisiana State University (\$400) National Geographic Society Grant (\$24,000) Cornell Lab of Ornithology Student Research Grant (\$20,000) National Geographic Society Young Explorer's Grant (\$5,000) Explorer's Club Youth Activity Award (\$1,500) Cornell Lab of Ornithology Student Research Grant (\$4,000) American Ornithologist's Union Student Travel Award (\$550) Hunter R. Rawlings Cornell Presidential Research Scholarship (\$5,000)	2015 2015 2014 2014 2013 2012 2012 2012 2012 2012 2012 2012 2012
Ornithology Collection, LSU Museum of Natural Science Curatorial assistant.	Aug. 2012 – Aug. 2013
Genetic Resources Collection, LSU Museum of Natural Science Curatorial assistant.	Aug. 2011 – Aug. 2012
Macaulay Library of Natural Sounds, CLO, Ithaca, NY Collections assistant.	Sep. 2007 – Feb. 2008
TEACHING EXPERIENCE:	
Workshop on Ultraconserved Elements (week-long workshop on lab methods and bioinformatics)  Instructor	Mar. 2013
Principles of Genetics (LSU sophomore-level course) <i>Teaching assistant.</i>	Aug. – Dec. 2010
Biological Laboratories for Science Majors (LSU introductory course) <i>Teaching assistant.</i>	Jan. – May 2010

### **SCIENTIFIC PRESENTATIONS:**

- Harvey, M. G. 2016. Contrasting evolutionary histories between birds of upland and floodplain forest in the Amazon. Talk. American Society of Naturalists Meeting, Asilomar, California.
- **Harvey, M. G.,** G. F. Seeholzer, B. T. Smith, D. L. Rabosky, A. M. Cuervo, J. T. Klicka, and R. T. Brumfield. 2015. Population divergence predicts evolutionary diversification in New World birds. Hamilton Award Symposium talk. Evolution, Guarujá, Brazil.
- **Harvey, M. G.** 2014. Comparative phylogeography using genomic datasets. Talk. Annual meeting of the American Ornithologist's Union, Estes Park, Colorado.
- **Harvey, M. G.** 2014. Harnessing genomics for evolutionary study of Neotropical birds. Talk. Third Meeting of the Network for Neotropical Biogeography, Bogotá, Colombia.
- **Harvey, M. G.** 2013 Phylogeography of the Neotropical bird *Xenops minutus* using genome-wide single nucleotide polymorphisms. Talk. Annual meeting of the American Ornithologist's Union, Chicago, Illinois.
- **Harvey, M. G.**, B. T. Smith, B. C. Faircloth, T. C. Glenn, and R. T. Brumfield. 2013. SNPs versus sequences for phylogeography an exploration using simulations and massively parallel sequencing in a non-model bird. Society of Systematic Biologists invited symposium talk. Evolution, Snowbird, Utah.
- **Harvey, M. G.**, B. T. Smith, B. C. Faircloth, T. C. Glenn, and R. T. Brumfield. 2013. Ultraconserved elements (UCEs) and comparative phylogeography of Neotropical birds. Poster. Sixth Conference of the International Biogeography Society, Miami, Florida.
- **Harvey, M. G.**, B. T. Smith, B. C. Faircloth, T. C. Glenn, J. E. McCormack, and R. T. Brumfield 2012. Genomic phylogeography of lowland Neotropical birds using ultraconserved elements (UCEs). Talk. Fifth North American Ornithological Conference, Vancouver, Canada.
- **Harvey, M. G.**, B. T. Smith, B. C. Faircloth, T. C. Glenn, J. E. McCormack, and R. T. Brumfield. 2012. Genomic ultraconserved elements (UCEs) information content for phylogenetics and phylogeography in birds. Poster. First Joint Congress on Evolutionary Biology, Ottawa, Canada.
- **Harvey, M. G.**, C. Carrizales, and R. T. Brumfield. 2011. Phylogeographic discord in the comparative genomic history of Amazonian birds. Poster. Ninth Neotropical Ornithological Congress, Cusco, Peru.
- **Harvey, M. G.**, B. M. Winger, G. F. Seeholzer, and D. Caceres A. 2009. Avifauna of the Gran Pajonal and southern Cerros del Sira, Peru. Poster. Annual meeting of the American Ornithologist's Union, Philadelphia, Pennsylvania.
- **Harvey, M. G.** and D. N. Bonter. 2006. Red-bellied Woodpecker range expansion response to climate change? Poster. Fourth North American Ornithological Congress, Veracruz, Mexico.

# **SERVICE AND OUTREACH:**

LSU Peru Big Day Fundraiser and Outreach Effort (Isubigday.org) Oct. 2014 *Organizer and participant, world big day record holder.* 

Peru Birding Rally Challenge Nov. 2012

LSU Tigrisomas team member, first place.

LSU Museum of Natural Science Big Day Fundraiser *Team member, Louisiana big day record holder.* 

Apr. 2010, 2012, 2014

Coordinator:

LSU Museum of Natural Science Seminar Series

Aug. 2010 – May 2011

LSU BioGrads (Social Coordinator)

Mar. 2012 – Mar. 2013

Reviewer:

Systematic Biology, Molecular Ecology, Evolution, Auk, Journal of Field Ornithology, Cotinga, Biotropica

## **MUSEUM EXPEDITIONS:**

Expedition leader:

Peru – Dec. 2015

CORBIDI/LSUMNS Expedition to the middle Río Ucayali

Brazil – Jul. 2012 (co-led with Bret Whitney) MZUSP/LSUMNS Expedition to Rio Sucunduri

Peru – Nov. 2011

CORBIDI/LSUMNS Expedition to Bamboo in Dpto. Madre de Dios

Brazil – Jul. 2011 (co-led with Bret Whitney and Vitor Piacentini) MZUSP/LSUMNS Expedition to Rio Tapajós

Peru – Apr.-Aug. 2011 (co-led with Glenn Seeholzer) CORBIDI/LSUMNS Expedition to upper Río Ucayali

Peru – Jul. 2010 (co-led with Gustavo Bravo) CORBIDI/LSUMNS Expedition to upper Río Ucayali and Río Pachitea

Peru – Aug.-Nov. 2008 (co-led with Benjamin Winger and Glenn Seeholzer) CUMV Expedition to the Cerros del Sira and Gran Pajonal

Expedition member:

Bolivia - Oct.-Dec. 2013

MHNNKM/LSUMNS Expedition to the Cotacajes Valley

Bolivia – Dec. 2010-Jan. 2011

MHNNKM/LSUMNS Expedition to Cochabamba and the Beni

Costa Rica – May-Jun. 2010

UCRMZ/LSUMNS Expedition to lowlands for César Sanchez's dissertation