

CURRICULUM VITAE  
-MARCELLA D. BAIZ-

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PhD candidate, Dept. Ecology & Evolutionary Biology, University of Michigan  
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**EDUCATION**

2013 to present	<b>PhD, Ecology &amp; Evolutionary Biology</b> , University of Michigan, Ann Arbor, MI. Co-advisors: Lilliana Cortés Ortiz and Priscilla Tucker
2013	<b>MS, Ecology &amp; Evolutionary Biology</b> , University of Michigan, Ann Arbor, MI. Co-advisors: Lilliana Cortés Ortiz and Elizabeth Tibbetts
2010	<b>BS, Biology</b> , Grand Valley State University, Allendale, MI

**AWARDS AND FELLOWSHIPS**

2018	<b>Science Communication Fellow</b> , University of Michigan Museum of Natural History
2014-2016	<b>Genetics Training Grant Fellowship</b> , University of Michigan
2013-present	<b>Rackham Merit Fellowship</b> , University of Michigan
2011-2013	<b>Frontiers Master's Program Fellowship</b> , University of Michigan
2010	<b>Outstanding Graduating Biology Major Award</b> , Grand Valley State University

**GRANTS**

2016	<b>Edwards C. Walker Scholarship</b> , \$2,153.61, University of Michigan, Museum of Zoology
2015	<b>Grant in Aid of Research</b> , \$1,500, American Society of Mammalogists
2015	<b>Dept. Ecology &amp; Evolutionary Biology Research Block Grant</b> , \$2,648, University of Michigan
2014	<b>Rackham Graduate Student Research Grant</b> , \$1,500, University of Michigan
2014	<b>Dept. Ecology &amp; Evolutionary Biology Research Block Grant</b> , \$1,670, University of Michigan
2012	<b>Dept. Ecology &amp; Evolutionary Biology Research Block Grant</b> , \$850, University of Michigan

**ACADEMIC APPOINTMENTS**

***Research***

2016	<b>Graduate Student Lab Manager</b> , Genomic Diversity Lab, University of Michigan,
2015	<b>Graduate Student Curatorial Assistant</b> , Museum of Zoology, Bird Division, University of Michigan

***Teaching***

2017, 2018	<b>Scientist Ambassador</b> , Michigan DNA Day, Huron High School (2017), Pioneer High School (2018), Ann Arbor, MI
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2017-2018	<b>Undergraduate Research Opportunity (UROP) mentor</b> , University of Michigan
2011-2013	<b>Graduate Student Instructor</b> , University of Michigan Courses taught: Intro to Ecology, Evolution, and Genetics (BIO 171), Evolution (EEB 390)
2005-2007	<b>Student Tutor</b> , Jackson College

## **RESEARCH EXPERIENCE**

2013-present	<b>Dissertation Research</b> , University of Michigan, Dept. Ecology & Evolutionary Biology Title: <i>Genes, chromosomes, and speciation: The genetic architecture of speciation in a primate hybrid zone</i> . My dissertation research uses genome-wide data to detect signatures of reproductive isolation between two howler monkey species.
2011-2013	<b>Thesis Research</b> , University of Michigan, Dept. Ecology & Evolutionary Biology Title: <i>Intragroup genetic relatedness in two howler monkey species (Alouatta pigra and A. palliata): Implications for understanding social systems and dispersal</i> . My thesis research used genetic data to quantify and compare genetic relatedness within social groups of two primate species with different social systems and patterns of dispersal.
2009-2010	<b>Undergraduate research</b> , Grand Valley State University My research focused on the ecological factors affecting parental nest defense behavior and egg mass in tree swallows.

## **PUBLICATIONS**

2018	<b>Baiz, M. D.</b> , Cortés-Ortiz L., Tucker, P. K. Multiple forms of selection shape reproductive isolation in a primate hybrid zone. <i>Molecular Ecology</i> . Accepted.
2018	Ackermann, R.R., Arnold, M. L., <b>Baiz, M. D.</b> , Cahill, J.A., Cortés-Ortiz, L., Evans, B., Grant, P. R., Grant, B. R., Hallgrimsson, B., Humphreys, R., Jolly, C. J., Malukiewicz, J., Percival, C. J., Ritzman, T., Roos, C., Roseman, C. C., Schroeder, L., Smith, F. H., Warren, K., Wayne, R., and Zinner, D. Hybridization in human evolution: insights from other organisms. <i>Evolutionary Anthropology</i> . Submitted. <a href="https://doi.org/10.31730/osf.io/y3bp7">https://doi.org/10.31730/osf.io/y3bp7</a> (pre-print)
2018	Cortés-Ortiz L.*, <b>Nidiffer M. D.*<sup>†</sup></b> , Hermida-Lagunes J., Garcia-Orduña F., Rangel-Negrín A., Kitchen D. M., Bergman T. B., Canales-Espinosa D., Dias P. A. D. Reduced introgression of sex chromosome markers in the Mexican howler monkey ( <i>Alouatta palliata</i> x <i>A. pigra</i> ) hybrid zone. <i>International Journal of Primatology</i> . <a href="https://doi.org/10.1007/s10764-018-0056-4">https://doi.org/10.1007/s10764-018-0056-4</a> *These authors contributed equally to this paper

<sup>†</sup>Please note that I am in the legal process of changing my last name from Nidiffer to Baiz

- 2015 **Nidiffer, M. D.<sup>†</sup>**, and Cortés-Ortiz, L. Intragroup genetic relatedness in two howler monkey species (*Alouatta pigra* and *A. palliata*). *American Journal of Primatology* 77:1333-1345. <https://doi.org/10.1002/ajp.22487>

### **INVITED PRESENTATIONS**

- 2018 ***The genetic architecture of speciation in a primate hybrid zone.*** Oral Presentation: **Baiz, M. D.** Genetics Training Grant Program Senior Student Seminar. University of Michigan, Ann Arbor, MI, USA
- 2018 ***Genomic signatures of reproductive isolation are driven by divergence in allopatry and sympatry in a howler monkey hybrid zone.*** Oral presentation: **Nidiffer, M. D.<sup>†</sup>**, Cortés-Ortiz, L. Symposium “Primate genetics and genomics”. International Primatological Society Biennial Meeting, Nairobi, Kenya.
- 2017 ***Genome-wide admixture, introgression, and reproductive isolation in a natural primate hybrid zone.*** Oral presentation: **Nidiffer, M. D.<sup>†</sup>** Genetics Training Grant Program Retreat, Ann Arbor, MI, USA
- 2016 ***Reproductive isolation and genome-wide introgression in a howler monkey hybrid zone.*** Oral presentation: **Nidiffer, M. D.<sup>†</sup>** Genetics Training Grant Program Senior Student Seminar. University of Michigan, Ann Arbor, MI, USA
- 2016 ***Reproductive isolation and genome-wide introgression in a howler monkey hybrid zone.*** Oral presentation: **Nidiffer, M. D.<sup>†</sup>**, Cortés-Ortiz, L. Symposium “Hybridization and natural hybrid zones in primates.” International Primatological Society Biennial Meeting, Chicago, IL, USA.

### **CONTRIBUTED PRESENTATIONS**

- 2018 ***Towards an understanding of the role of hybridization in promoting diversity of immune-related-genes (MHC) in a howler monkey hybrid zone.*** Oral presentation: Melo-Carillo, A., **Baiz, M. D.**, Cortés-Ortiz, L. Midwest Primate Interest Group Annual Meeting, Bloomington, IN, USA
- 2018 ***Male-specific reproductive gene sequence homology in *Alouatta palliata* and *Homo sapiens*.*** Poster: Choi, M., **Nidiffer, M. D.<sup>†</sup>**, Cortés-Ortiz, L. International Primatological Society Biennial Meeting, Nairobi, Kenya
- 2018 ***MHC variation in sister howler monkey species (*Alouatta palliata* and *A. pigra*).*** Poster: Melo-Carillo, A., **Nidiffer, M.D.<sup>†</sup>**, Cortés-Ortiz, L. International Primatological Society Biennial Meeting, Nairobi, Kenya
- 2018 ***A phylogenetic analysis of New World Monkeys using the nuclear and mitochondrial genomes.*** Poster: Al Bayati, M., **Nidiffer, M. D.<sup>†</sup>** Undergraduate Research Symposium, Ann Arbor, MI, USA
- 2017 ***Genome-wide admixture, differential introgression, and signatures of reproductive isolation in a howler monkey hybrid zone.*** Oral presentation: **Nidiffer, M. D.<sup>†</sup>**, Cortés-Ortiz, L. Evolution Annual Meeting, Portland, OR, USA
- 2017 ***Identifying a neo-sex chromosome via deep resequencing in a hybridizing primate species.*** Poster: **Nidiffer, M. D.<sup>†</sup>**, Cortés-Ortiz, L.,

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- 2017 Tucker, P. K., Mueller, J. L. Evolution Annual Meeting, Portland, OR, USA  
***Identifying a neo-sex chromosome via deep resequencing in a hybridizing primate species.*** Poster: Nidiffer, M. D.<sup>†</sup>, Cortés-Ortiz, L., Tucker, P. K., Mueller, J. L. American Society of Mammalogists Annual Meeting, Moscow, ID, USA
- 2014 ***Genomic clines and admixture in a natural primate hybrid zone.*** Poster: Baiz, M. D., Cortés-Ortiz, L. Evolution Annual Meeting, Raleigh, NC, USA
- 2012 ***Within-group female relatedness in two species of howler monkeys.*** Poster: Baiz, M. D., Cortés-Ortiz, L. International Primatological Society Biennial Meeting, Cancún, QR, MX

### **MANUSCRIPT REVIEWER**

*Ethology* (2012), *International Journal of Primatology* (2017, 2018)

### **PROFESSIONAL SOCIETIES**

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| 2015-present | American Society of Mammalogists     |
| 2015-2016    | American Genetic Association         |
| 2014-present | American Society of Naturalists      |
| 2012-present | International Primatological Society |

### **OUTREACH AND MENTORING**

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| 2018      | <b>Capstone group leader</b> , Women+ Excelling More in Math Engineering and Science (FEMMES), University of Michigan  |
| 2018      | <b>Scientist Spotlight</b> , Palmer Commons, Ann Arbor, MI   |
| 2018      | <b>Scientist Spotlight</b> , Forsythe Middle School, Ann Arbor, MI   |
| 2017      | <b>Capstone group leader</b> , Females Excelling More in Math Engineering and Science (FEMMES), University of Michigan |
| 2014-2015 | <b>Breeding Bird Surveyor</b> , Washtenaw County Parks and Recreation, Ann Arbor, MI                                   |
| 2014-2015 | <b>Graduate Student Mentor</b> (EEBigSib), University of Michigan  |
| 2013      | <b>SEEDS BioBlitz group leader</b> (rapid biodiversity survey), Belle Isle, Detroit, MI                                |

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