Anna C. Weber

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EDUCATION

PhD Candidate, University of New Orleans (LA) (GPA 4.0), Supervisor: Prof. Nicola Anthony *2016-present*

- Coursework: Conservation biology, natural resource management, evolutionary genomics, conservation genetics, multivariate statistics in R, scientific communication, threats to coastal ecosystems
- Dissertation: "Past and present patterns of neutral and adaptive genetic diversity in wild mandrills (*Mandrillus sphinx*) in Gabon"

BS Biology with Anthropology minor, Alma College (MI) (GPA 3.7) *2011-2014*

- *Magna cum laude* graduate, Honors in Biology
- Coursework: Ecology, avian ecology, genetics, physiology, statistics, anthropology, sociology
- Thesis (Biology): "An analysis and comparison of passerine species at two central Michigan sites"
- Final capstone (Anthropology minor): "The role of local communities in conservation"

ACCEPTED PUBLICATIONS

- A. Guibinga Mickala, **A. Weber**, S. Ntie, P. Gahlot, D. Lehmann, P. Mickala, K. Abernethy and N. Anthony. "*Estimation of the census (N_c) and effective (N_e) population size of a wild mandrill (*Mandrillus sphinx*) horde in the Lopé National Park, Gabon using a non-invasive genetic approach*" accepted for publication in Conservation Genetics, 31 May 2022

MANUSCRIPTS IN PREP

- **A. Weber**, A. Guibinga Mickala, J. Lighten, C. van Oosterhaut, K. Abernethy, S. Ntie, P. Mickala, D. Lehmann, and N. Anthony. Working title: *"Exploring the major histocompatibility complex of wild mandrills (*Mandrillus sphinx*) using non-invasive samples"*
- **A. Weber**, A. Guibinga Mickala, S. Ntie, P. Mickala, D. Lehmann, K. Abernethy, and N. Anthony. Working title: "*Historical demography of forest-dependent wildlife in Gabon"*

SCHOLARHIPS AND AWARDED FUNDING

Sustainable Wildlife Graduate Fellowship, Audubon Nature Institute *2017-2018, 2020-present*

- Graduate research assistantship with $23,000 annual stipend

North American Congress for Conservation Biology Financial Support *July 2022*

- $300 student support to attend NACCB 2022 in Reno, NV

Charlotte-Magnum Student Support, Society for Integrative and Comparative Biology *Jan. 2020*

- ~$700 student support to attend SICB 2020 conference in Austin, TX

National Geographic Society Early Career grant (submitted, not funded) *Dec. 2017*

- $5000, requested effective dates June 4, 2018-March 1, 2019

Posey Global Leadership Fund fellowship (Alma College) *2013*

- ~$2000, funded a five-week conservation internship in Victoria Falls, Zimbabwe

Posey Global Leadership Fund fellowship (Alma College) *2012*

- ~$2000, funded a four-week volunteer research experience in Thailand

Trustee Honors Scholarship *2011-2014*

- merit-based undergraduate scholarship at Alma College

Distinguished Trustee Honors Scholarship *2011-2014*

- merit-based undergraduate scholarship at Alma College

PARTICIPATION AT PROFESSIONAL MEETINGS

"How reliable are non-invasive samples for sequencing hypervariable loci?" (upcoming) *July 19, 2022*
candidate for Best Student Presentation, Society for Conservation Biology North America

"Demographic history of wild mandrills during periods of environmental change," *Jan. 2021*
virtual talk, Society for Integrative and Comparative Biology

"Characterizing the class II major histocompatibility complex in wild mandrills," *Jan. 4-8, 2020*
oral presentation, Society for Integrative and Comparative Biology, Austin, TX

"Reproductive ecology of wild mandrills" *Sept. 30, 2019*
oral presentation, Audubon Nature Institute Sustainable Wildlife Research Program Symposium, New Orleans, LA

"Characterizing the class II major histocompatibility complex in wild mandrills," *Nov. 19, 2019*
oral presentation, InnovateUNO Student Research Symposium, New Orleans, LA

"Next-generation sequencing of fecal samples reveals extensive trans-species *June 21-25, 2019*
polymorphism in the major histocompatibility complex in mandrills and related primates"
poster, Evolution, Providence, RI

"A comparison of MHC genetic diversity in wild and semi-captive populations *Nov. 7, 2018*
of mandrills in Gabon"
poster, InnovateUNO Student Research Symposium, New Orleans, LA

"The use of non-invasive genetics to study the reproductive ecology of wild mandrills" *Oct. 12, 2018*
oral presentation, University of Louisiana at Lafayette Graduate Student Symposium in Lafayette, LA

RESEARCH EXPERIENCE

University of New Orleans (LA), dissertation research *2016-present*

- Reconstructed demographic history of multiple central African species from microsatellite markers using full-likelihood Bayesian analysis
- Characterized the mandrill major histocompatibility complex using next-generation sequencing
- Assessed replicability of targeted amplicon sequencing using non-invasive samples
- Testing for evidence of MHC-based mate choice in wild mandrills
- Collected mandrill fecal samples in Gabon in 2017 and 2018 in collaboration with local scientists
- Mentored eight undergraduate research assistants and trained multiple graduate students
- Managed laboratory inventory and spending on equipment, supplies, and services

Audubon Nature Institute (LA), volunteer research assistant *Mar.-Jun. 2018*

- Conducted surveys of reptiles and amphibians in Bayou Sauvage National Wildlife Refuge
- Aided in health evaluations on captured snakes, including blood draws, body measurements, and tagging with passive integrated transponders

Institute for Bird Populations (CA), assistant bird bander *May-Aug. 2016*

- Assisted in breeding season bird banding efforts in Yosemite National Park

Kalamazoo Valley Bird Observatory (MI), research assistant *Aug.-Oct. 2015*

- Assisted in bird banding efforts during fall migration at multiple sites around Kalamazoo County, Michigan

Alma College Biology Department (MI), research assistant *Jun.-Aug. 2014*

- Worked in the field assisting Alma College faculty in breeding season bird banding in central Michigan

Victoria Falls Wildlife Trust (Zimbabwe), volunteer research assistant *Jun.-Jul. 2013*

- Assisted on predator surveys, vegetation surveys, and wildlife rehabilitation

Global Vision International (Thailand), volunteer research assistant *Jun.-Jul. 2012*

- Studied behavior and dietary preferences of elephants living "semi-wild" in rural Thailand

SKILLS

- DNA extraction, PCR, quantitative PCR, Sanger sequencing, cloning, microsatellite genotyping
- Biological fieldwork, including surveys, transects, and sample collection
- R, Python, and Linux shell for data manipulation and statistical analysis
- Processing and analysis of high-throughput sequence data
- Highly skilled in written communication and scientific dissemination
- Mentorship and instruction of students in laboratory techniques
- Management of lab inventory, ordering, and coordinating services by outside contractors
- Highly organized, detail-oriented, and dependable
- International and cross-cultural collaboration
- Learning and applying new skills and concepts to produce high-quality research

TEACHING

Molecular Ecology, Guest lecturer, University of New Orleans (LA) *Oct. 15, 2020*

Biology II Lab, Teaching assistant, University of New Orleans (LA) *Fall 2019-Fall 2020*

Conservation Biology, Guest lecturer, University of New Orleans (LA) *Oct. 30, 2019*

Human Anatomy & Physiology Lab, *Fall 2016-Spring 2017*
Teaching assistant, University of New Orleans (LA)

SERVICE AND MEMBERSHIPS

Student Representative, Society for Conservation Biology North America, 2-3 year term *July 1, 2022*

Guest speaker through Skype a Scientist *Oct. 28, 2021*

United Campus Workers of Louisiana, member *August 2021-present*
- Helped establish a branch of the United Campus Workers union at the University of New Orleans
- Successfully advocated for the passage of Louisiana Senate Bill 76 to eliminate fees for graduate workers

Society for Conservation Biology Conservation Genetics Working Group, member *Mar. 2021-present*
- Collaborated in the development of a database to connect conservation practitioners with geneticists

Volunteer writer, LearnNagoya.com *August 2020*

President, University of New Orleans Biology Graduate Student Association *2017-2018*
- Organized social, educational, and community service events for graduate students

Beta Beta Beta Biology Honor Society, member *2014*

Presidential Honors Program (Alma College), member *2011-2014*

REFERENCES

Dr. Nicola Anthony (New Orleans, Louisiana, USA)
Professor, Freeport-McMoran Chair in Wildlife Sustainability
Department of Biological Sciences, University of New Orleans
E-mail: nanthony@uno.edu Phone: 504-280-1362

Dr. Katharine Abernethy (Libreville, Gabon)
Professor of Tropical Ecology, Division of Biological and Environmental Sciences, University of Stirling (UK)
Associated Senior Researcher, Institute of Tropical Ecology Research (Gabon)
E-mail: k.a.abernethy@stir.ac.uk Phone: +44 7961 650 826