Margarita Hernandez, M.A.

(she/her/hers)
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EDUCATION

The Pennsylvania State University *Aug. 2017-*
Ph.D. Fellow
Laboratory of Anthropological Genomics
Department of Anthropology
College of Liberal Arts and Sciences

The Pennsylvania State University *Aug. 2017-May 2019*
Master of the Arts in Anthropology
Master's Paper: Understanding the factors that influence non-human primate genomic data generation

University of Florida *Aug. 2011-May 2015*
Bachelors of Science *summa cum laude* in Biology
Bachelors of Arts *cum laude* in Anthropology
Undergraduate Honors Thesis: *Leptosiphon* and flower color: investigating color acquisition in Polemoniaceae using phylogenetics

RESEARCH EXPERIENCE

Anthropological Genomics Graduate Fellow *Aug. 2017-*
Advisors: Dr. George H. Perry and Dr. Mary K. Shenk
Department of Anthropology
The Pennsylvania State University

Wildlife Ecology Undergraduate Research Assistant *July 2014-Oct. 2015*
Advisor: Dr. Coleman M. Sheehy III
Department of Wildlife Ecology and Conservation, Seahorse Key Marine Laboratory
University of Florida

- Conducted a dietary analysis to determine the effects of the Greenhouse Frog on local populations of invertebrates on Seahorse Key, Florida.

Botany Undergraduate Research Assistant *Sept. 2012- July 2015*
Advisors: Drs. Pamela S. Soltis and Douglas E. Soltis
Florida Museum of Natural History, Laboratory of Molecular Systematics and Evolutionary Genetics
University of Florida

- Assisted in generating a near-complete phylogeny for Polemoniaceae and investigated flower color, size and pollinator acquisition through evolutionary time.
- Individual research project regarding flower color evolution in *Linanthus* and *Leptosiphon* in the angiosperm family Polemoniaceae.

WORK EXPERIENCE

SETS and Science Quest Program Coordinator *Aug. 2015-Aug. 2017*
Center for Precollegiate Education and Training, University of Florida, Gainesville, Florida

- Schedule and coordinate visits from high school and middle school students to the University of Florida as a part of the SETS program, where they participate in authentic science explorations and visits to research laboratories.
- Oversee and plan all activities for the Science Quest program, a one-week summer enrichment program designed to introduce high school students to a variety of STEM fields and careers.
- Regularly travel to various high schools within Florida to implement standards-aligned modules with students.
- Manage and maintain laboratory equipment, used both for laboratory experiments within the University and sent to Florida teachers as equipment lockers to aid in curriculum implementation.

Program Assistant *May 2015-Aug. 2015*
Center for Precollegiate Education and Training, University of Florida, Gainesville, Florida

- Assisted in program implementation for Biomedical Explorations: Bench to Bedside, a professional development program for secondary science teachers focused on clinical and translational research and biomedical techniques.
- Coordinated modules for Summer Science Institute: Tree of Life, aimed at promoting a "Tree Thinking" perspective for predominately middle school science teachers.

PEER-REVIEWED PUBLICATIONS

Hernandez, M., M.K. Shenk, and G.H. Perry. Factors influencing taxonomic unevenness in scientific research: A mixed-methods case study of non-human primate genomic sequence data generation. *Royal Society Open Science.* 7: 201206. http://dx.doi.org/10.1098/rsos.201206.2020.

Hernandez, M. and J. K. Gibb. Culture, behavior, and health. *Evolutionary Medicine and Public Health.* 2020.1: 12-13. 2020.

Landis, J.B., C.D. Bell, **M. Hernandez**, R. Zenil-Ferguson, E.W. McCarthy, D.E. Soltis, and P.S. Soltis. Evolution of Floral Traits and Impact of Reproductive Mode on Diversification in the Phlox Family (Polemoniaceae). *Molecular Phylogenetics and Evolution*. 127:878-890. 2018.

NON-PEER-REVIEWED PUBLICATIONS

Hernandez, M. and G.H. Perry. Scanning the human genome for 'signatures' of positive selection: Transformative opportunities and ethical obligations. *Evolutionary Anthropology*. 2021. (In press).

Hernandez, M., M.K. Shenk, and G.H. Perry. Factors influencing taxonomic unevenness in scientific research: A mixed-methods case study of non-human primate genomic sequence data generation. *bioRxiv* 2020.04.16.045450; doi: https://doi.org/10.1101/2020.04.16.045450. 2020.

Hernandez, M. and T. Lasisi. A guide to anthropology for non-anthropologists. *Evolutionary Anthropology.* 27(6). 2018.

Sheehy III, C.M., M.T. Fedler, T.A. Gilbert, **M. Hernandez**, and B.K. Atkinson. *Anolis sagrei* (Brown Anole). Geographic distribution. *Herpetological Review*. 46(2): 215–216. 2015.

PRESENTATIONS

George Perry, Margarita Hernandez, Sylvia Kokuda, and Levi Busingye. Biological anthropology and evolutionary genomics: Transformative opportunities and ethical obligations. (Oral Presentation). The American Association of Physical Anthropologists Annual Meeting. April 7-28, 2021. Online.

Margarita Hernandez, Mary K. Shenk, and George Perry. Factors influencing taxonomic unevenness in scientific research: A mixed-methods case study of non-human primate genomic sequence data generation. (Poster). Northeastern Evolutionary Primatologists Annual Conference. November 13-14, 2020.

Margarita Hernandez and George Perry. A mixed-methods approach to identify factors influencing non-human primate genomic sequence data generation. (Oral Presentation). The American Association of Physical Anthropologists Annual Meeting. April 15-18, 2020. Los Angeles, CA.

Lily J. D. DeMars, America M. Guerra, Joshua M. Wisor, **Margarita Hernandez**, Taylor S. Wood, Amber Cesare, Kathleen Hill, and Timothy M. Ryan. An activity based five-day professional development workshop for pre-college educators: incorporating evolution and biological anthropology into middle- and high-school curricula. (Poster). The American Association of Physical Anthropologists Annual Meeting. April 15-18, 2020. Los Angeles, CA.

Margarita Hernandez. A mixed-methods approach to identify factors influencing non-human primate genomic sequence data generation. (Oral Presentation). LGBTQ+ Excellence in STEM. November 21, 2019. State College, PA.

Margarita Hernandez and James K. Gibb. Cultural behavior and health. (Oral Presentation). TriCEM Evolutionary Medicine Summer Institute. May 24, 2019. Raleigh, NC.

Margarita Hernandez, Tina Lasisi, Chloe McGuire, Emily Kate, and Gina Buckley. Anthropology outreach initiatives: How to get involved in the local community as a graduate student. (Poster). Anthropology Day. April 5, 2019. State College, PA.

Margarita Hernandez, Tina Lasisi, Chloe McGuire, Emily Kate, and Gina Buckley. Anthropology outreach initiatives: How to get involved in the local community as a graduate student. (Poster). The American Association of Physical Anthropologists Annual Meeting. March 27-30, 2019. Cleveland, OH.

Houda D. Pruitt, Julie R. Bokor, **Margarita Hernandez**, and Mary Jo Koroly. Bench to Bedside: The Effectiveness of a Professional Development Program Focused on Biomedical Sciences and Action Research. Association for Science Teacher Education Annual Meeting. (Oral Presentation). January 3-5, 2019. Savannah, GA.

Margarita Hernandez and George Perry. Understanding the factors that influence non-human primate genomic data generation. (Poster). Society for Advancement of Chicanos/Hispanics and Native Americans in Science Annual Meeting. October 11-13, 2018. San Antonio, TX.

Margarita Hernandez. Hands-on Human Evolution: A Laboratory-Based Approach. (Workshop). The American Association of Physical Anthropologists Annual Meeting. April 11-14, 2018. Austin, TX.

Margarita Hernandez and George Perry. Understanding the factors that influence non-human primate genomic data generation. (Invited Poster). The American Association of Physical Anthropologists Annual Meeting. April 11-14, 2018. Austin, TX. doi: 10.6084/m9.figshare.6231512

Margarita Hernandez and George Perry. Understanding the factors that influence non-human primate genomic data generation. (Poster). Anthropology Day. April 6, 2018. State College, PA.

Margarita Hernandez and George Perry. Understanding the factors that influence non-human primate genomic data generation. (Poster). Graduate Exhibition, The Pennsylvania State University. March 25, 2018. State College, PA.

Margarita Hernandez and James D. Pampush. Defining the relationship between primate seasonal breeding and climate instability. (Poster). The American Association of Physical Anthropologists Annual Meeting. April 19-22, 2017. New Orleans, LA.

Margarita Hernandez and Julie Bokor. Hands-On Human Evolution. (Hands-On Workshop). National Science Teacher Association Annual Conference. April 1, 2017. Los Angeles, CA.

Houda Darwiche and **Margarita Hernandez**. A medical mystery of epidemic proportions: Keeping the science in health science. (Oral Presentation). Florida Association for Career and Technical Education Annual Conference. July 26, 2016. Orlando, FL.

Houda Darwiche, **Margarita Hernandez**, Julie R. Bokor, and Mary Jo Koroly. Biomedical Explorations: Professional Development for Secondary Science Teachers. (Poster). National Institute of Health: Science Education Conference. May 10, 2016. Washington, D.C.

Margarita Hernandez, Houda Darwiche, Julie Bokor, and Mary Jo Koroly. Broadening participation in STEM through partnerships between researchers and precollege students. (Poster). National Alliance for Broader Impacts Summit. April 20-22, 2016. Philadelphia, PA.

Margarita Hernandez, Jacob B. Landis, Douglas E. Soltis, and Pamela S. Soltis. *Leptosiphon* and flower color: investigating color acquisition in Polemoniaceae using phylogenetics. (Poster). Botany Conference, July 25-29, 2015. Edmonton, Alberta, Canada.

Margarita Hernandez and Coleman M. Sheehy III. Preliminary dietary analysis of introduced Greenhouse Frogs (*Eleutherodactylus planirostris*) on Seahorse Key, FL. (Poster). Herpetology Conference. March 27-28, 2015. Gainesville, FL.

Margarita Hernandez, Jacob B. Landis, Douglas E. Soltis, and Pamela S. Soltis. *Leptosiphon* and flower color: investigating color acquisition in Polemoniaceae using phylogenetics. (Poster). Beckman Symposium, Aug. 7-9, 2014. Irvine, CA.

Margarita Hernandez, Jacob B. Landis, Douglas E. Soltis, and Pamela S. Soltis. *Leptosiphon* and flower color: investigating color acquisition in Polemoniaceae using phylogenetics. (Poster). Botany Conference, July 26-30, 2014. Boise, ID.

Jacob B. Landis, **Margarita Hernandez**, Douglas E. Soltis, and Pamela S. Soltis. Floral and pollinator evolution in Polemoniaceae. (Oral Presentation). Undergraduate Research Seminar, July 2, 2014. Gainesville, FL.

Jacob B. Landis, **Margarita Hernandez**, Douglas E. Soltis, and Pamela S. Soltis. Floral and pollinator evolution in light of a near-complete phylogeny for Polemoniaceae. (Poster). Evolution Conference, June 20-24, 2014. Raleigh, NC.

Margarita Hernandez. Dietary Analysis of *Eleutherodactylus planirostris*. (Oral Presentation). Seahorse Key Marine Laboratory Research Presentations. June 16, 2014. Seahorse Key, FL.

Jacob B. Landis, **Margarita Hernandez**, Douglas E. Soltis, and Pamela S. Soltis. Floral and pollinator evolution in light of a near-complete phylogeny for Polemoniaceae. (Poster). Undergraduate Research Symposium, March 27, 2014. Gainesville, FL.

Jacob B. Landis, **Margarita Hernandez**, Douglas E. Soltis, and Pamela S. Soltis. Floral and pollinator evolution in light of a near-complete phylogeny for Polemoniaceae. (Poster). Botany Conference,

July 28-31, 2013. New Orleans, LA.

ORGANIZED SYMPOSIA

Teaching Bio Anth Within and Without a Classroom, AAPA 2019, **Organizer and Presenter** *April 2019*

TEACHING EXPERIENCE

ANTH 21 Introduction to Biological Anthropology, **Instructor** *Spring 2021*
ANTH 216N Sex and Evolution, Penn State, **Teaching Assistant** *Fall 2020*
ANTH 45N Cultural Diversity: A Global Perspective, Penn State, **Instructor** *Summer 2020*

GUEST/INVITED LECTURES

Anthropology of Race and Racism, **Guest Panelist** *April 2021*
Introductory Biological Anthropology, **Guest Lecturer**, Strepsirrhine diversity *Mar. 2020*
LGBTQ+ Excellence in STEM, **Speaker and Panelist** *Nov. 2019*
Introductory Biological Anthropology, **Guest Lecturer**, Strepsirrhine diversity *Oct. 2019*
Physiology and Molecular Biology of Organisms, **Guest Lecturer**, Kidney function *Feb. 2015*

FUNDING AND AWARDS

Graduate Research Fellowship Program Fellowship, National Science Foundation *Aug. 2017-*
Paul T. Baker Research Travel Fund in Human Biology and Anthropology, $2,880 *April 2021*
Hill Fellowship Post-Comprehensive Examination Award, $3,000 *April 2021*
RGSO Dissertation Support Competition, Penn State, $2,000 *Jan. 2021*
Matson/Benson Award in the College of Liberal Arts, Penn State, $1,087 *Jan. 2020*
Reclaiming STEM Workshop, University of New Hampshire *Sept. 2019*
Evolutionary Medicine Summer Institute, North Carolina State University, $425 *May 2019*
Partisan Award, Penn State Leadership and Service Awards, Penn State *April 2019*
SACNAS, Travel Award *Oct. 2018*
Summer Institute in Statistical Genetics Scholarship, University of Washington, $1,950 *July 2018*
Graduate Fellows Leadership Program Scholarship, Worcester Polytechnic Institute *June 2018*
Graduate Student Poster Award, Anthropology Day, Penn State, $100 *April 2018*
Hill Fellowship Graduate Training Award, Department of Anthropology, Penn State, $1,500 *March 2018*
Dean's Distinguished Fellowship, The Graduate School, Penn State *Aug. 2017-May 2018*
Ford Foundation Fellowship, Honorable Mention, NASEM *Aug. 2017*
Increasing Diversity in Evolutionary Anthropological Sciences Award, AAPA *April 2016*
Undergraduate Achievement Award, Botanical Society of America, $1,000 *July 2015*
Bright Futures Scholarships: Florida Academic Scholars Award *Aug. 2011-May 2015*
Young Botanist Award, Botanical Society of America *April 2015*
Undergraduate Diversity at Evolution 2014 Award, National Evolutionary Synthesis Center *June 2014*
Broadening Diversity in the Biological Sciences Award, iDigBio *Feb. 2014*
Beckman Scholars Award, Arnold and Mabel Beckman Foundation, $19,300 *2013-2014*
BSA Undergraduate Student Research Award, Botanical Society of America, $200 *2013*
Comcast Leaders and Achievers Scholarships, Comcast, $1,000 *Aug. 2011*

UNIVERSITY AND PROFESSIONAL SERVICE

Coalition of Graduate Employees (CGE) at Penn State, **Member** *July 2020-*
Graduate Women in Science, Penn State, **Empower Conference Committee Co-Chair** *May 2020-*
AGSA, Penn State, Graduate Welfare Committee, **Founding Member** *May 2018-July 2020*
AGSA, Penn State, Outreach Committee, **Founding Member** *Sept. 2017-July 2020*

SACNAS Chapter, Penn State, **President** *May 2019-May 2020*
Dept. of Anthropology, Penn State, **Colloquium/Seminars Committee Member** *Aug. 2018-May 2020*
Graduate School Applications Workshop, Lambda Alpha, Penn State, **Presenter** *April 2020*
2020 Undergraduate Exhibition, Penn State, **Poster Judge** *April 2020*
Dept. of Anthropology, Penn State, **Social Media Coordinator** *June 2018-Aug. 2019*
Anthro Grad Student Assoc., Penn State, **Vice-President** *May 2018-May 2019*
SACNAS Chapter, Penn State, **Founding Member, Co-Vice-President** *Feb. 2018-May 2019*
Science Policy Society, Penn State University, **Science-On-Tap Co-Coordinator** *Aug.-Dec. 2018*
Dept. of Anthropology, Penn State, **Colloquium and Seminars Committee Member** *Aug.-Oct. 2018*
Center for Undergraduate Research, University of Florida, **Co-Peer Mentor Chair** *April 2014-May 2015*
Undergraduate Research Seminar, University of Florida, **Coordinator** *June 2013-May 2015*
Undergraduate Student Research Panel, **Panelist** *2013-2014*
Center for Undergraduate Research, University of Florida, **Presenter** *May 2013*

OUTREACH AND VOLUNTEER WORK

Elect Tierra Williams for Ferguson Township Campaign, **Graphics Coordinator** *Mar. 2021-*
State College Solidarity Collective, **Organizer** *Mar. 2021-*
3/20 Coalition, Community and Political Education Committee, **Organizer** *Jan. 2021-*
3/20 Coalition, **Volunteer** *June 2020-*
Centre County COVID-19 Community Response Team (4CR), **Volunteer** *Mar. 2020-Mar. 2021*
STEAM Partner, Sweetwater Elementary, Miami, FL, **Presenter** *Jan. 2021*
Surviving Graduate School, Mujeres Activas en Letra y Cambio Social (MALCS), **Panelist** *Sept. 2020*
Graduate School Personal Statements Workshop, Lambda Alpha, Penn State, **Presenter** *Sept. 2020*
Community Edu. and Extended Learning Program, SCA School District, **Session Leader** *Mar. 2020*
ENVISION: STEM Career Day for Young Women, **Presenter** *Feb. 2020*
Exploration-U, Bellefonte Area High School, **Presenter** *Nov. 2019*
MOBILITY Workshop, Department of Anthropology, Penn State, **Presenter** *July 2019*
Community Edu. and Extended Learning Program, SCA School District, **Session Leader** *April-May 2019*
"This is what AgSci looks like!", Pasto Agricultural Museum, **Action Lab Leader** *April 2019*
Easterly Parkway Elementary Science and Technology Fair, **Presenter** *Feb. 2019*
Me...Jane Kids Connection, Center for the Performing Arts, Penn State, **Presenter** *Feb. 2019*
ENVISION: STEM Career Day for Young Women, Penn State, **Workshop Co-Organizer** *Jan. 2019*
Primate Perspectives, i-STEAM Workshop, Penn State, **Content Co-Organizer/Presenter** *Dec. 2018*
Haunted-U, AGSA Outreach Committee, Science-U, Penn State, **Volunteer** *Oct. 2018*
Community Edu. and Extended Learning Program, SCA School District, **Session Leader** *April 2018*
Easterly Parkway Elementary Science and Technology Fair, **Presenter** *Feb. 2018*
Girl Scout Workshop, Graduate Women in Science, Penn State, **Workshop Leader** *Nov. 2017*
Florida Museum of Natural History, University of Florida, **Fossil Dig Volunteer** *Nov.-Dec. 2016*
Broadening Participation in the Biological Sciences, iDigBio, **Speaker** *Oct. 2015*
Summer Science Institute, Center for Precollegiate Edu. and Training, **Workshop Co-Leader** *July 2014*
Seahorse Key Marine Laboratory Open House, **Volunteer** *July 2014*
STEM Immersion, Center for Precollegiate Edu. and Training, **Workshop Co-Leader** *July 2013, 2014*
Jungle Friends Primate Sanctuary, **Volunteer** *March 2014*
Shands at the University of Florida, Departments of Radiology and Geriatrics, **Volunteer** *Aug.-Dec. 2012*

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Graduate Women in Science (GWIS) *June 2020-*
Society for Advancement of Chicanos/Hispanics and Native Americans in Science *March 2018-*
American Association for Anthropological Genetics *March 2018-*
American Association of Physical Anthropologists *March 2016-*

Lambda Alpha: National Collegiate Honors Society in Anthropology	*Sept. 2013-*
Out in STEM (oSTEM)	*Jan. 2019-Jan. 2020*
National Science Teacher Association	*Feb. 2017-Feb. 2018*
Botanical Society of America	*June 2013-June 2016*

ADVANCED COURSEWORK

Ethnographic Field Methods	*Spring 2019*
Population Genetics	*Spring 2019*
Proposal Writing	*Fall 2018*
Integrative Genomics	*Summer 2018*
Conservation Genetics	*Summer 2018*
Advanced Population Genetics	*Summer 2018*
Visualizing Anthropological Data	*Spring 2018*
Biological Anthropology Core	*Fall 2017*
Human Behavioral Ecology Core	*Fall 2017*
Archaeology Core	*Fall 2017*
Health and Disease in Human Evolution	*Spring 2015*
Primate Evolution	*Spring 2015*
Physiology and Molecular Biology of Animals	*Fall 2014*
Coastal Conservation Biology	*Summer 2014*
Primates Diversity	*Spring 2014*
Human Evolutionary Anatomy	*Fall 2013*
Human Osteology	*Fall 2013*
Genome Doubling (graduate seminar)	*Fall 2013*

SKILLS

Technical skills:	Microsoft Word, PowerPoint and Excel, WordPress, Geneious, Mesquite, R, RStudio, BayesTraits, Adobe InDesign, Adobe Photoshop, NVivo, MailChimp, Canva
Laboratory skills:	PCR, agarose gel electrophoresis, DNA extraction, Nanodrop quantification, seed germination, greenhouse experience, dissections, microscope work, bacterial transformation
Languages:	Spanish (fluent)