# Education

**Ph.D. (c)**, University of Michigan, Department of Ecology and Evolutionary Biology.

**M.S.**, University of Michigan, Department of Ecology and Evolutionary Biology.

**B.S.,** (Magna Cum Laude) Biology (Minor: Chemistry), Howard University, Department of Biology.

# Keywords Environmental justice, agroecology, climate technology.

# Philanthropic Experience

2020 – Present **Co-Founder and Executive Director, Aya Research Institute**

Leading a think tank to facilitate the work of POC scientists and engineers in environmental justice research, providing U.S. national and state policy recommendations; design fellowship programing on collaborative research with Columbia, UCLA, and MIT; manage our multi-million-dollar portfolio.

# Leadership Experience

2022 – Present **U.S. Department of Energy, Office of Clean Energy Demonstrations**

Subject to NDA no further details available.

2022 – 2024 **Columbia Mailman School of Public Health Agents of Change in Environmental Justice Senior Fellow**

Authoring science communication publications and op-eds centered on environmental, food, and energy justice in international POC communities.

2022 – 2024 **Harvard Climate Justice Design Senior Fellow**

Engineering and troubleshooting environmental justice screening and mapping tool approaches to cumulative impacts for EJSCREEN and CEJST at Harvard Institute for Quantitative Social Science.

2022 **Federation of American Scientists Policy Entrepreneurship Fellowship**

Designed a Justice40 tracker with an accompanying White House report, which is now available and used by all federal government agencies, conducting policy research on environmental justice screening tools at federal and state levels.

2021-2022 **Massachusetts Institute of Technology (MIT) I-CORPS Consultant**

Consulting grassroots EJ organizations on agriculture and public health initiatives.

2018- 2021 **Sustainability Without Borders Researcher, Kampala, Uganda**

Conducting a social-life cycle assessment of water filters ensured fair working conditions and environmental health and safety; Submitted 10+ grants yearly; SPOUTS survey data management and analysis; provided public health recommendations for typhoid prevention.

2017-2024 **Ph.D., University of Michigan Department of Ecology and Evolutionary Biology**

Lead teams for farmer participatory action research expeditions in Hawai’i and Jamaica to improve United Nations SDG biophysical indicators. Published on farm-borne zoonotic disease transmission, zero carbon, and U.S. environmental justice.

2016-2017 **Hot Metal Bridge Post Baccalaureate Student, University of Pittsburgh**

“Characterizing and quantifying the vertical dimension of plant diversity in tropical and temperate forests.” and “Panamanian Golden Frog Population Response to *Batrachochytrium dendrobatidis* Post-Crash.”

2016 **Organization of Tropical Studies Graduate Field Ecology Course: Skills for Science and Beyond, Costa Rica**

2013-2016 **Research Assistant, Howard University** **& Museum of Natural History’s Southwestern Research Station**

Principal Investigators: Dr. Mary McKenna & Dr. George Middendorf

“Modeling Influence of Canyon Structure & Sunlight Availability on Habitat Preference of Yarrow’s Spiny Lizard (*Sceloporus jarrovii*)”

# Technical Skills: Languages – R, Python; Software – ArcGIS, MAXQDA, Glue; Successful matrixed and decentralized team management; expertise in commodities markets and supply chains.

# Board Membership

2023-Present **EDFU Foundation Advisory Board Member**

Support executive staff to help improve strategic direction and leadership to ensure EDFU vision of a fairer world for indigenous people is realized. The key objective set out by the EDFU Foundation Inc. is the achievement of mental, social, and economic freedom for indigenous people all over the world.

2022-Present **United Negro College Fund, Climate Action Advisory Board Member**

Shaping the direction of UNCF climate action efforts. The board’s primary goal is to provide expert advice and guidance to UNCF ICB leadership on the development and implementation of effective HBCU-focused climate action strategies.

2022-Present **Chair of Renewable Thermal Collaborative Community Benefits Advisory Board**

Serving as an external expert to: (a) provide advice and guidance to the RTC community on Just Transition principles and Justice, Equity, Diversity, and Inclusion (JEDI) issues associated with industrial thermal decarbonization, (b) help guide engagement and relationship building with community stakeholders, etc.

# Publicity

**Federation of American Scientists Emerging Policy Entrepreneur Award 2023** (beside *Oppenheimer* Director Christopher Nolan for 2023 FAS Public Service Award)

**Guest lectures** on regenerative agriculture and international climate policy at national and international forums, including United Nations Conference of Parties (Paris, Spain, Egypt, Poland, etc.), Harvard University, University of California Los Angeles, etc.

# Awards

2023 Federation of American Scientists Emerging Policy Entrepreneur Award 2023

2022 UM Women in Science and Engineering Claudia Joan Alexander Trailblazer Award

2022 William R. and Flora Hewlett Foundation Award **($1,500**)

2022 Harvard Climate Justice Design Fellowship (**$10,000**)

2022 Rachel’s Network Catalyst Award Finalist **($1,000**)

2022 Federation of American Scientists - Policy Entrepreneurship Fellow **($5,000**)

2020 World Wildlife Foundation (WWF) Conservation Leadership Award **($5,000)**

2019 DOW Distinguished Award, Large Grant Competition, Sus. W/o Borders (**$75,000**)

2018 Rackham Graduate Student Research Grant, University of Michigan **($1500)**

2016 Rackham Science Award, University of Michigan **($283,052)**

2016 Patrick Healy Graduate Fellowship, Georgetown University - Declined **($398,900)**

2016 Hot Metal Bridge Program, University of Pittsburgh **($22,692)**

2016 HBSciU Science Writing Fellowship, HBSciU Editors **($2,600)**

2014 Environmental Biology Scholars Research Fellowship, Howard University **($30,000)**

2013 College of Arts & Sciences General Scholarship, Howard University **($5,089)**

# Grants

2022 Deep South Center for Environmental Justice COP Travel Grant **($4,000)**

2022 Society for Economic Botany Conference Grant **($800**)

2022 System Innovation Inc. Travel Grant **($1,000**)

2022 UM EEB Block Grant – Environmental Justice Award **($2,500**)

2022 MIT Sandbox Innovation Fund Program – AYA Research Institute **($2,000**)

2021 MIT I-CORP Program Non-Profit Accelerator Grant **($1,500**)

2021 University of Michigan Library Mini Grant **($1,000**)

2018 Climate Blue Conference of Parties Travel Grant, University of Michigan **($752.17)**

2018 Rackham Professional Development Grant, University of Michigan **($400)**

2018 Dr. Nancy Williams Walls Award for Field Research, University of Michigan **($1353)**

2016 OTS Field Ecology Course Grant, University of Pittsburgh **($2,800)**

# Teaching Experience

2020 COVID-19 Transition Instructional Assistant, Introduction to Biology Lab BIO173, University of Michigan

2020 Graduate Student Instructor, Introduction to Biology Lab BIO173, University of Michigan

2019 Graduate Student Instructor, Introduction to Ecology and Evolutionary Biology BIO171, University of Michigan

2017 Graduate Student Instructor, Intro Biology Lab BIO 173, University of Michigan

2015 Debate Instructor/Mentor, Carbon Pricing, University of Chicago (Victory Briefs)

# 2014-2013 Teaching Assistant, Tech Writing Pre-Professional ENGL 009, Howard University

# Publications

Safford, H., **White, A**., Goldman, E., Iyer, V. (2022). Assessment of Progress on the White House Environmental Justice Advisory Council (WHEJAC)’s Justice40 Recommendations. Federation of American Scientists.

Perfecto, I., Chaves, L. F., Fitch, G. M., Hajian-Forooshani, Z., Iuliano, B., Li, K., ... & Williams-Guillen, K. (2023). Looking beyond land-use and land-cover change: Zoonoses emerge in the agricultural matrix. *One Earth*, *6*(9), 1131-1142.

**White, A.** “Establishing the AYA Research Institute: Increasing Data Capacity and Community Engagement for Environmental-Justice Tools | Day One Project.” *Federation of American Scientists*. Day One Project. 23 May 2022. Policy Memo.

**White, A.,** Dacic, N., Ajimal, R., Boisvert, K., Oriol, L.,Akash, S. (2021). How UNFCCC’s COP Can Achieve Carbon Neutrality. Journal of Science Policy & Governance, 6(1), 22-26.

Perfecto, I., Hajian-Forooshani, Z., **White, A.,** Irizarry, A. D., Lugo-Perez, J., Medina, N., ... & Vandermeer, J. (2019). Response of Coffee Farms to Hurricane Maria: Resistance and Resilience from an Extreme Climatic Event. Scientific reports, 9(1), 1-11.

Perfecto, I., Hajian-Forooshani, Z., **White, A.**, & Vandermeer, J. Ecological complexity and contingency: Ants and lizards affect biological control of the coffee leaf miner in Puerto Rico. Agriculture, Ecosystems & Environment, 305, 107104.

**White, A.** "They Don't Accept the Fact That It Is Climate Change” *HBSciU*. HBSciU Editors, 23 Sept. 2016. Web.

**White, A.** “HBCUs Opt for Sustainability” *HBSciU*. HBSciU Editors, 15 Aug. 2016. Web.

**White, A.** “A Climate for Divestment” *HBSciU*. HBSciU Editors, 15 Aug. 2016. Web.

# Presentations

**Guest Lecture:** Agroecology and UNFCCC COP27 Analysis. 2023Harvard University; Harvard Kennedy School Women’s Network.

**Talk:** Climate-Smart Agriculture & International Climate Policy: Does farm spatial scale affect biodiversity? 2022 United Nations First Permanent Forum for People of African Descent.

**Guest Lecture:** Climate-Smart Agriculture & International Climate Policy: Does farm spatial scale affect biodiversity? 2022Missouri State University, BIO101: Introduction to Biology Course.

**Guest Lecture:** UNFCCC COP27 Debrief. 2022 Massachusetts Institute of Technology; New Engineering Education Transformation Program, Nuclear Engineering Department Seminar.

**Talk:** Climate-Smart Agriculture & International Climate Policy: Does farm spatial scale affect biodiversity? 2022 United Nations Conference of Parties 27; Climate Justice Pavilion.

**Guest Lecture:** Climate-Smart Agriculture & International Climate Policy: Does farm spatial scale affect biodiversity? 2021 University of California San Diego, Approaches to Climate Change Course.

**Guest Lecture:** Climate-Smart Agriculture & International Climate Policy: Does farm spatial scale affect biodiversity? 2021 University of California San Diego, Introduction to Environmental Science: Environmental Issues Course.

**Guest Lecture:** Climate-Smart Agriculture & International Climate Policy: Does farm spatial scale affect biodiversity? 2021 University of Pittsburgh - Sustainability in Latin America Course.

**Talk:** Climate-Smart Agriculture & International Climate Policy: Does farm spatial scale affect biodiversity?; 2020 University of Michigan Ecology and Evolutionary Biology Seminar, Ann Arbor, MI.

**Talk:** No COP Out: The Path Home for U.N. Climate Talks; Global Food Systems and Agriculture. 2019 COP 24 Symposium. Ann Arbor, MI.

**Talk:** Hungry, Hungry Lizards: Quantifying Anoline Biocontrol Agency In Coffee Agroecosystems. 2018 New Horizons Conference Talk. Chicago, IL.

**Talk:** Panamanian Golden Frog Population Response to *Batrachochytrium dendrobatidis* Post-Crash. 2017 University of Pittsburgh Rotation Talk. Pittsburgh, PA.

**Talk:** The distribution of vascular plant diversity in mature forest profiles: a Neotropical versus temperate forest comparison. 2016 University of Pittsburgh Rotation Talk. Pittsburgh, PA.

**Talk**: The Influence of Sunlight Availability on the Habitat Selection by *Sceloperous jarrovii* (Yarrow’s Spiny Lizard). 2016 Howard University Research Symposium. Washington D.C.

**Talk**: The Influence of Sunlight Availability on the Habitat Selection by *Sceloperous jarrovii* (Yarrow’s Spiny Lizard). 2016 ESA Mid-Atlantic Conference. Kutztown, PA.

**Talk**: Breaking the Silence: A Discussion about the Divestment at HBCUs. 2016 HBCU Climate Change Conference. New Orleans, LA.

# Professional Experience

Present **Co-Founder and Executive Director, Aya Research Institute**

Founded a science policy think tank and 501(c)(3) non-profit, AYA Research Institute, with the mission to increase the number of scientists and engineers involved in environmental justice research via fellowship and provide practical recommendations for U.S. federal and state policy. managed international food justice and projects in Jamaica, native Hawaiian communities, and the Bahamas; managing two (2) AYA Fellows on a collaborative project with Columbia and MIT; holding a symposium to showcase just transition work from Howard University students.

2023 **TED Countdown Youth Leader**

Countdown is a collaboration powered by TED and Leaders’ Quest. Championed and accelerated the bold ideas and underinvested solutions to achieving a zero-carbon world.

2022 **Science Outside the Lab Ambassador, National Nanotechnology Initiative**

Long-standing program sponsored by the U.S. National Science Foundation (NSF) and Nanotechnology Collaborative Infrastructure Southwest (NCI-SW) where ambassadors selected from Universities across the U.S. investigate the context of science and technology decision-making in government and business at the state, federal, and international levels.

2022 **Lead Manager - Conference of Parties 27 Climate Justice Pavilion**

Organized, hosted, and collected data for COP side events in France, Poland, Spain, and Egypt while collaborating with HBCUs. Delivered research talks and DEI presentations to world leaders and COP observers. Student lead for the first ever Climate Justice Pavilion.

2022 **Small Farmers’ Sustainability Indicators Specialist – USAID, Farmer2Farmer**

Quantified and analyzed customary farm practices of farmers and current marketing modalities within the premium coffee growing zone of the Jamaican Blue Mountains; determined a baseline index of the ecological footprint of coffee production and the socio-economic signatures of the small coffee producers.

2020 **Data Manager**

Developed library for University of Michigan Trotter Multicultural Center program rosters with over 8 years of data. Troubleshooted registration program via Salesforce.

2019 **COP 24 Side Event Coordination Assistant**

Organized, hosted and collected data for the COP24 Side Event *12th Focal Point Forum of the Nairobi Work Programme: Economic Diversification*

2019 **GAF Energy Structure Finance and Investments**

Published an investment thesis for GAF Solar Energy, helped to facilitate multimillion-dollar deals with GAF and their investment partners (i.e. private equity, hedge fund, utility etc.)

2018 **EvoBites Editor**

Revising, consolidating and maintaining entries to a reader’s digest for research on Evolutionary Biology

2016 **Freelance Science Writer – HBSciU Editors**

Investigated and reported on issues concerning environmental justice and climate change in the U.S.

2016 **D.C. District Leadership Program Fellow – Office of the Mayor (Office of Labor Relations and Collective Bargaining)**

Statistically assessed D.C. housing market for NEAH Program to bring D.C. employees back into the tax base. Statistically assessed all D.C. labor relations cases for the fiscal year

2016 **Operation HOPE – Government Relations and Collective Bargaining Fellow**

Attended and spoke at White House Big Table Roundtables as a representative of Operation HOPE, Inc. Increased the number of programs available for disenfranchised populations to access financial literacy education as it relates to food deserts with the Chief of Government Relations for PROJECT 5117

# Professional Societies

2022 **National Science Policy Network** – via Policy Entrepreneur Fellowship with Day One Project: Early Career Science Policy Accelerator

2022 **Federation of American Scientists** – via Policy Entrepreneur Fellowship with Day One Project: Early Career Science Policy Accelerator

2018 **American Association for the Advancement of Science** – member of the Program for Excellence in Science

2016 **National Association of Science Writers** – Submit monthly articles on science-related current issues to hbsciu.com

# Service

2020-Present **Earth Day 50 Advisory Board Member, University of Michigan**

Help to organize events, establish funding resources and correspond with speakers for the University of Michigan’s campus-wide Earth Day event celebrating its 50th anniversary

2018 – Present **Climate Blue Co-Director, University of Michigan**

Helped to develop and manage a suite of community outreach events educating local communities about the politics behind international climate finance and procedure

2017 – Present **Ecology Day (EcoDia) Committee, University of Michigan and Finca Irlanda, Mexico**

Helped to design an interactive program for local school children (K-8) near Finca Irlanda with a goal of introducing the elements of field ecology and experimental design

2017 – Present **BioBlitz Fundraising Committee, EEB, University of Michigan**

Organizing the funding for educational outreach event introducing underrepresented students to ecology, conservation, evolutionary biology and an array of career paths associated within these disciplines

2015 – Present **HBCU Climate Change Initiative, Deep South Center for Environmental Justice – Chapter Delegate**

Orchestrated fundraising for Howard University participation in Peoples Climate March and COP 21. Invited to and participated in various panel discussions and interviews at Conference of the Parties 21 in Paris. Presented research on HBCU divestment from fossil fuel companies HBCU 4th Annual Climate Conference

2015 **Victoria University of Wellington, New Zealand, Disability Assistance Department** – **Scribe**

Attended courses on behalf of disabled individuals as a scribe

# Outreach

2021 World Wildlife Fund Panda Ambassadors Lecture

2021 The Corps Network Panel w. Capri St.Vil

2021 Black Girl Environmentalists Panel w. Wanjiku Gatheru

2021 World Wildlife Fund Instagram AMA Chat

2021 Detroit High School Science Careers Seminar

2021 Victory Briefs Equity Lecture Series

2021 SEAS Panel “Crucial Conversations: Understanding and Addressing Climate Change”

2021 Hawaii Girl Scouts Troop 400 Speaking Events

2021 World Wildlife Fund International Women’s Day Panel Discussion

2020 “Alexa White Breaks Down Food Sovereignty with A. Alba” NowThisNews Interview

2020 World Wildlife Fund Conservation Leadership Award Ceremony Speech

2019 United Nations Climate Change Conference/Conference of the Parties 25, Madrid, Spain

2019 New Horizons in Conservation Conference, Chicago, IL

2018 United Nations Climate Change Conference/Conference of Parties 24, Katowice, Poland

2016 University of Pittsburgh Forest Symposium, Powdermill Nature Reserve, PA

2016 Science Writers Conference 2016, San Antonio, TX

2015 HBCU Climate Change Conference, New Orleans, LA

2015 United Nations Climate Change Conference/Conference of the Parties 21, Paris, France

2015 ESA Mid-Atlantic Meeting, Kutztown, PA

# Affiliations/Memberships

2018 – Present **Green Leadership Trust** – Board membership group acting together as fiduciaries of color and indigenous peoples identifying and confronting practices of bias, cultural preference and homogeneity, to transform the environmental sector

2018 – Present **American Association for the Advancement of Science** – member of the Program for Excellence in Science

2016 – Present **National Association of Science Writers** – Submit monthly articles on science-related current issues to hbsciu.com

2014 – 2016 **Ecological Society of America SEEDS, Howard University President** - Led Anacostia River Clean Up, organized science fair with H.U. Middle School of Mathematics and Science