

Maya L. Shamsid-Deen

PhD Candidate
National Academies of Science, Engineering, & Medicine Fellow
Department of Biology
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RESEARCH INTERESTS

I am a Botanist with broad plant systematics and evolutionary ecology research interests. I currently investigate the mechanisms of plant colonization and persistence – particularly via phenotypic plasticity and symbiosis. My background includes algal and plant systematics, where my research integrated field work, natural collections, morphology, phylogenomics, taxonomy, and bioinformatics. To reclaim erased narratives, I have researched the history of an agriculturally based society called Blackdom, New Mexico, to highlight the importance of botanical relationships in Black culture past and present.

EDUCATION

Doctor of Philosophy in Biology Program, August 2019 – December 2024 (*expected*)

University of New Mexico, Albuquerque, NM

Dissertation: “The Dynamics of Plant Colonization, Establishment, and Persistence: Roles of Phenotypic Plasticity and Fungal Symbionts”

Major Advisor: Dr. Kenneth Whitney

Master of Science in Biology, August 2017 – July 2019

Ecology, Evolution, & Conservation Biology Emphasis

Northern Arizona University, Flagstaff, AZ

Thesis: “An Investigation of the Phylogenetic Relationships within the Genus *Glossopetalon* (Crossosomataceae)”

Major Advisor: Dr. Tina Ayers

Bachelor of Science in Biology, August 2013 - May 2017

The University of Alabama, Tuscaloosa, AL

Research Focus: Algal Floristics and Systematics

Research Advisor: Dr. Juan Lopez-Bautista

CERTIFICATIONS

Diversity, Equity and Inclusion in the Workplace Certificate, University of South Florida. July 2022

PUBLICATIONS

Shamsid-Deen, M.L., Williams, T.M., Jasny, M., Finch, J. In Press. Black Botany: Towards Equitable Representation in Contemporary Botany and Botanical History. *Plant Science Bulletin*.

Shamsid-Deen, M.L., Porter, J.M. 2022. Black Placemaking Under Environmental Stressors: Dryland Farming in the Arid Black Pacific, 1890-1930. *Environment and Society* 13(1):121-139. <https://doi.org/10.3167/ares.2022.130108>

Allen, M.L., Lagomarsino, L.P. 2022. Tanisha M. Williams - Recipient of the 2021 Peter Raven Award. *Systematic Botany*. 47(1):4-5. <https://doi.org/10.1600/036364422X16442668423338>

Allen, M.L., Ayers, T. 2021. A Revised Classification of *Glossopetalon* (Crossosomataceae) Based on Restriction Site-Associated DNA Sequencing. *Systematic Botany* 6(3): 562-572. <https://doi.org/10.1600/036364421X16312067913417>.

Williams, T.M., Bleau, J., **Allen, M.L.**, Silvera Seamans, G, Cannon, B., Fontaine, N., Halane, M., Koopman, R., Makunga, N.P., Itumeleng, M., Soto, T., Montgomery, B.L. 2021. Growing a Community: The Inaugural #BlackBotanistsWeek Recap and Looking Forward. *Taxon*. 70:219-222. <https://doi.org/10.1002/tax.12442>

SCIENCE PRESENTATIONS

***denotes invited lectures**

Shamsid-Deen, M.L., Whitney, K. The Little Mustard That Could: Is Phenotypic Plasticity Associated with Colonization Success in *Arabidopsis thaliana*? Oral. Botany 2023 Conference, Boise, Idaho. July 2023.

- Phenotypic Plasticity Associated with Colonization Success? Comparisons of European Colonizers, North American Colonizers, and Relict Populations of *Arabidopsis thaliana*. Oral. University of New Mexico Brown Bag Seminar. October 2022.
 - Poster. Botany 2022 Conference, Anchorage Alaska. July 2022.

Shamsid-Deen M.L., Fowler J.C., Miller T.E.X., Rudgers J.A., Whitney, K. Elucidating Host-Microbe Symbiosis Impacts on Host Genetic Diversity through a Long-Term Study. Poster. UNM Research Days. April 2023.

- Poster. Botany Boise, ID, July 2023.

***Shamsid-Deen M.L.**, Melton III, J.T., Garcia-Soto, G., Lopez-Bautista, J.M. The Seaweeds of Alabama: An Overdue Floristic Assessment. Oral. UNM Botanical Diversity & Preservation Course Seminar. March 2023.

***Shamsid-Deen M.L.**, Whitney, K. From Past to Present: How Plasticity and Persistence Lead to Promise. Oral. Spelman College Bio Seminar. February 2023.

***Shamsid-Deen M.L.** From Phylogenetic Reconstructions to Plant Colonization - the Blossoming of a Botanist. Oral. University of Wisconsin at Eau Claire Biology Departmental Seminar. September 2022.

*** Allen, M.L.**, Ayers, T. A Journey Across the Southwest: Unveiling the Relationships of a Spiny Group of Desert Shrubs called *Glossopetalon*. Oral. Native Plants Society of New Mexico Albuquerque Chapter. March 2022.

*** Resolving the Phylogeny of a Genus of Obscure Shrubs: A Revised Classification of *Glossopetalon* (Crossosomataceae).** Oral. 46th Annual Southern California Botanists Symposium Living on the Edge – Plants in Extreme Environments. October 2020.

- Resolving the Phylogeny of *Glossopetalon* (Crossosomataceae).
 - Oral. Botany 2019: George R. Cooley Award Competition, Tucson, AZ, July 2019.
 - Oral. Native Plants Society Meeting, Flagstaff, AZ, June 2019.

Allen, M.L., Melton III, J.T., Garcia-Soto, G., Lopez-Bautista, J.M. A Morphological and Molecular Assessment of Seaweeds in the Understudied Coast of Alabama.

- The Seaweeds of Alabama. Poster. 4th Annual Northern Arizona STEM Poster Session. Flagstaff, AZ, September 2017.
- Oral. Undergraduate Research and Creative Activity Conference, Tuscaloosa, AL, March 2017.
- The Seaweeds of Alabama. Oral. 38th Annual Southeastern Phycological Colloquy, Valdosta GA, November 2016.
- Poster. Phycological Society of America Annual Meeting. Cleveland, OH, July 2016.

Allen, M.L., Melton III, J.T., Macaya, E., Wynne, M.J., Lopez-Bautista, J.M. The Biodiversity of *Ulva* Species (Ulvophyceae, Chlorophyta) from Atlantic USA and Chile Based on Molecular Data.

- Poster. Undergraduate Research and Creative Activity Conference. Tuscaloosa, AL, March 2016.
- Poster. Southeastern Phycological Colloquy (SEPC). Harbor Branch, Fort Pierce, FL, October 2015.

Allen, M.L., Melton III, J.T., Lopez-Bautista, J.M. Identification of *Ulva* Species (Ulvophyceae, Chlorophyta) from Wilmington, North Carolina, Using Molecular Data. Undergraduate Research and Creative Activity Conference. Poster. Tuscaloosa, AL, April 2015.

RESEARCH GRANT AWARDS & FELLOWSHIPS

National Academies of Science, Engineering, and Medicine Ford Predoctoral Fellowship, Fall 2022. \$27,000 annually.

UNM Graduate and Professional Student Association Student Research Grant, Spring 2022. Is Phenotypic Plasticity Associated with Colonization Success? Comparisons of Native, Non-Native, and Relict Populations of *Arabidopsis thaliana* (Brassicaceae). \$500

UNM Graduate and Professional Student Association Professional Development Grant, Spring 2022. \$500

BGSA Graduate Resource Allocation Committee Research Grant, Fall 2020. Is Phenotypic Plasticity Associated with Colonization Success? Comparisons of Native, Non-Native, and Relict Populations of *Arabidopsis thaliana* (Brassicaceae). \$400

Landward Foundation Research Grant, Fall 2017. An Investigation of the Phylogenetic Relationships and Morphological Concordance Within the Genus *Glossopetalon* (Crossosomataceae). \$8,313

UA College of Arts and Sciences Travel Award Grant, Fall 2016. Travel funding for the Southeastern Phycological Colloquy. \$150

National Science Foundation Research Experience for Undergraduates Grant, Summer 2016. National Project (GrAToL) Assembling the Tree of Life for Green Algae. \$4,500

UA Undergraduate Research and Creative Activity Grant, *Spring 2016*. Travel funding for the Phycological Society of American Annual Meeting. \$1,000

UA Undergraduate Research and Creative Activity Grant, *Fall 2015*. Funding for coastal Alabama seaweed collection trip. \$400

National Science Foundation Research Experience for Undergraduates Grant, *Summer 2015*. National Project (GrAToL) Assembling the Tree of Life for Green Algae. \$4,500

TEACHING EXPERIENCE

Graduate Teaching Assistant, Department of Biology, University of New Mexico
Botany BIO360L, **3 semesters: *Spring 2020, Fall 2020, Spring 2022***
Ecology and Evolution BIO303L, **3 semesters: *Fall 2019, Spring 2021, Fall 2021***

Graduate Teaching Assistant, Department of Biological Sciences, Northern Arizona University
Writing in Biology for Microbiology Students BIO305W, **4 semesters: *August 2017-May 2019***

- Lead Teaching Assistant Fall 2018 Semester

MENTORING EXPERIENCE

Biology Graduate Student Association Mentor, University of New Mexico, *August 2020 –Present*

Project for New Mexico Graduate Students of Color, *August 2019 – Present*

- Mentored an undergraduate student in Biology and first-time research
- Mentored a sophomore undergraduate student in Biology
- Mentored a sophomore undergraduate student in preparing for Law School

Research Coaching Fellow, Department of Biology, University of New Mexico, *January 2020 –May 2021*

- Crafted a research seminar presentation on “How Does Research Work?”
- Completed training in mentoring and coaching techniques
- Improved on integrating undergraduate research into a classroom setting
- Mentored 2 undergraduates to assist on my research project and develop first time research experience

DIVERSITY, EQUITY, AND INCLUSION (DEI) EFFORTS

BlackBotanistsWeek Co-Founder, *June 2020 – Present*

- Co-organized the Holden Forest and Gardens – Black Botanists Week Organizing Committee [Scientific Lecture Series](#) Partnership, 2020-2021
 - Moderated 7 scientific lectures
 - Coordinated public relations partnerships and advertisement
- Organized “[Black Botanists at Work Panel Discussion](#)”, 2021
 - Booked panelists, created online registration form, and moderated panel discussion
- Organized and collaborated with the UNM African American Student Services to create “Botanizing While Black” virtual interview discussion, 2020
- **Invited Panelist Project for New Mexico Students of Color Black Feminist Panel**, *February 2023*
- **American Society of Plant Taxonomists Diversity Committee Liaison**, *October 2022 – Present*
- **Invited Panelist African American Student Services**, *September 2022*
- **Invited Panelist Project for New Mexico Students of Color Recruitment Roundtable**, *February 2022*

- **National Association for the Advancement of Colored People (NAACP) Member**, 2019 – 2022
- **UNM African American Student Services Interviewee**, Demystifying Graduate School Instagram Live. *Fall 2021*
- **Botanical Society of America DEI Committee Student Representative**, July 2020 – December 2021
- **American Society of Plant Taxonomists Diversity Committee Liaison**, October 2020 – July 2021
- **UNM Biology Government Student Association DEI Committee Co-Chair**, August 2020 – May 2021
- **Panelist ECURE Summer Institute Panel**, *Summer 2020*
- **Commission on the Status of Women, Northern Arizona University**, October 2018 – May 2019
- Data Collection Committee November 2018-May 2019

HISTOR & DIVERSITY, EQUITY & INCLUSION PRESENTATIONS *denotes invited lectures

***Shamsid-Deen M.L., Powdrell R.** The Journey of African American Homesteaders in New Mexico: Homesteads, Cultivation and Community, Oral. New Mexico Archeological Council Fall Conference. November 2022.

***Shamsid-Deen M.L.** A Germination of Freedom: How Dryland Farming Nourished the Emergence of Blackdom, New Mexico. Oral. Northern Arizona Biology Departmental Seminar. September 2022.

- A Germination of Freedom: How Blackdom, New Mexico Grew Its Roots through Dry-Farming Crops of the African Diaspora. Oral. Botany 2022 Conference, Anchorage Alaska. July 2022.
- * Sowing Seeds of Freedom. Oral. Albuquerque Museum. May 2022.
- * Oral. UNM Africana Studies Race and the Law 315 Course Seminar. March 2022.
- * Oral. Northern Arizona University School of Forestry. September 2021.
- * Freedom Through Dryland Farming – The Story of New Mexico’s First Black Settlement, Blackdom. Oral. Dry Farming Collaborative Winter Meeting. February 2021.
- * New Mexico Humanities Council Invited Panelist, Starting Conversations: Blackdom, NM. February 2021

***Allen (Shamsid-Deen), M.L.** Planting Seeds for the Future: Cultivating an Anti-Racist Environment Starts Now. Oral "Black Botanical Legacy: Past, Present, Future" Symposium. Botany 2022 Conference, Anchorage Alaska. July 2022.

HONORS, SCHOLARSHIPS, & AWARDS

Botanical Society of America Ecological Section Student Presentation Award Botany 2023 for the Presentation: The Little Mustard That Could: Is Phenotypic Plasticity Associated with Colonization Success in *Arabidopsis thaliana*. Co-author: Kenneth Whitney

The University of Alabama Black Alumni Association 60 for 60 Honoree, 2023

Economic Botany Section Student Travel Award, \$500. *Summer 2022*

American Association of University Women Albuquerque Scholarship, \$1,000 annually. *Spring 2022*

UNM Department of Biology’s Grove Scholarship, \$1,100. *Spring 2022*

UNM Department of Biology’s Grove Scholarship, \$1,100. *Spring 2021*

Zeta Phi Beta Sorority, Inc. National Education Foundation General Graduate Scholarship, \$1,000. *Fall 2020*

Zeta 100 Initiative – Science, *Spring 2020*
New Mexico Higher Education Scholarship, \$3,700. *Fall 2019*
American Society of Plant Taxonomists Travel Lottery Scholarship, *Summer 2019*
University of Alabama Class with the Dean, *Fall 2014*
University of Alabama Honor’s Day Academic Achievement Award, *Spring 2014*
University of Alabama Emerging Scholars Research Program & Scholarship, *August 2013 – May 2014*
University of Alabama Foundation in Excellence Scholarship, *Fall 2013*

SCIENCE OUTREACH & SERVICE

American Society of Plant Taxonomists Promotions Committee. *2022 – Present*
UNM Biology Graduate Student Association Co-President. *2022 – Present*
UNM Biology Graduate Student Association Research Day Committee Representative. *2022 – Present*
UNM Biology Undergraduate Society Invited Speaker, *Spring 2022*
UNM Graduate & Professional Student Association Council Member, Biology. *2021 – 2022*
UNM Biology Graduate Student Association Greenhouse Committee Representative. *2021 – 2022*
National Association of Plant Breeders, Establishing Your Brand Panelist. *Spring 2022*
Scientific Peer Reviewer, American Fern Journal (1), Graduate Research Allocation Committee Grant Reviewer (3)
American Society of Plant Taxonomists Nominations Committee. *2020 – 2021*
UNM BGSA Graduate Student Selection Committee Representative. *January – February 2021*
[Getting to the Heart of Science Communication](#) Interviewee, Book Interview *April 2020*
Science on Tap Co-Organizer, A Community Lecture Series, *December 2017 – July 2019*
The Green Room, Flagstaff, AZ
Science Fair Judge, Saint Thomas Aquinas Middle School, Rio Rancho, New Mexico *Spring 2020*

PROFESSIONAL SOCIETY MEMBERSHIP

1. **National Alumni Association, University of Alabama, Black Alumni Chapter** *November 2021 – Present*
2. **New Mexico Native Plants Society, Albuquerque Chapter,** *November 2021 – Present*
3. **Society for the Study of Evolution,** *April 2020 – Present*
4. **American Society of Plant Taxonomists,** *March 2018 – Present*
5. **Botanical Society of America,** *September 2018 – Present*