

# CADASE NEWSLETTER

The Continental and Diasporic Africa in Science Education (CADASE)  
*...a positive impact on the lives of people of African ancestry...*

March 2021

VOLUME 10, Issue 1

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### CADASE RIG Chair

Mary Atwater, University of Georgia, Georgia

Welcome members of the Continental and Diasporic Africa in Science Education Research Interest Group (CADASE-RIG). We hope that you and your family are safe and healthy during this time! Historically, this will be our first virtual conference, and we are still excited to meet with you, even though we cannot physically meet. We continue to be hopeful that we will return to a normal conference setting in 2022.

It is time again for me as the Chair of the CADASE RIG to highlight the accomplishments of the RIG members, and encourage its members to participate in the RIG's and NARST's activities.

**CADASE** is an approved Research Interest Group (RIG) of the National Association of Research in Science Teaching (NARST) Association  
<http://narst.org>

I want to reiterate that the mission of CADASE is to support research in science education that will have a positive impact on the lives of people of African ancestry. This is accomplished by (a) encouraging science educators to engage in research aimed at meeting the needs of people of African ancestry; and (b) providing intellectual, professional, and personal space for science educators engaged in such research. The CADASE RIG has several working standing committees this year; they have been working very hard to increase our membership, to design a fantastic program for the 2021 NARST virtual conference for its members, and provide mentoring support to the CADASE graduate students. Please read further in the newsletter for more details about these events and activities.

CADASE members have continued to meet the RIG's mission by supporting research about the Africa diaspora by publishing, receiving awards, fellowships, grants, presenting papers and workshops, and being promoted and/or receiving tenure at their representative institutions. Congratulations on all your achievements!

Please attend the CADASE Administrative session, its business meeting, educational, and social online events. The CADASE RIG sponsors some of these, while CADASE members present others. We must support each other. Have a great year!

We welcome all those who are interested in what we do and encourage you to join us as members by completing the **"New" Membership Application** [[Link](#)] and attending our scheduled meetings at this year's NARST virtual conference. Enjoy your conference!

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**94<sup>th</sup> Annual International Conference**  
**National Association for Research in Science Teaching**  
**April 7 - 10, 2021**  
**Virtual Conference**

*SCIENCE EDUCATION, A PUBLIC GOOD FOR THE GOOD OF THE PUBLIC?*  
*RESEARCH TO EMPOWER, EVOKE, AND REVOLUTIONIZE*

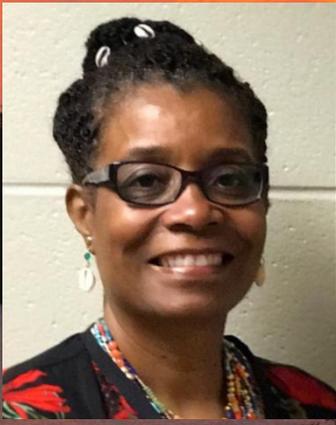
<https://narst.org/conferences/2021-annual-conference>



Photo Theme: *You can virtual anywhere!* (Photo: Stanton Belford)

**CADASE Steering Committee Chair**

Rona Robinson-Hill, Ball State University, Muncie, Indiana.



Dr. Rona Robinson-Hill is the current Steering Committee Chair of the Continental and Diasporic Africa in Science Education (CADASE) and the co-chair of the CADASE Special Administrative Session Committee. Rona is an assistant professor at Ball State University (BSU), Muncie, Indiana. She holds a B.S. in Biology from University of Missouri Kansas City; M.S. Curriculum & Instruction from Maryville University-St. Louis; and a Ph.D. in Science Education from University of MO-St. Louis. Her research interests include: (1) supervising practicums for elementary pre-service teachers (PSTs) in experiential settings and elementary school in Muncie, IN; (2) arranging 12-hour Shadow-A-Scientist experience in authentic BSU STEM research labs for secondary science PSTs which is embedded in her secondary methods course in the spring; (3) providing authentic paid summer internships for underserved students in grades 10-16 to perform research at BSU in the Training Future Scientist (TFS) Ambassador Program; (4) partnering with BSU Teacher's College colleague to co-direct the ENVision-Training Future Scientists Program, a

partnership with a local elementary school in Muncie, IN to engage PSTs in a 16-week literacy and science practicum in seven classrooms in this school; and finally (5) partnering with another BSU Teacher's College colleague to co-direct Summer Learning Fun @ Camp Adventure in Muncie, IN, a partnership to provide a 4-week summer camp for over 75-diverse underserved students from Delaware County, IN. Both of these intense immersive experiences provide over 200 hours of contact hours for these PSTs before students teaching to over 250 diverse underserved students either during their school day or in the summer for four weeks. From Fall 2015 – Fall 2019 she provided science instruction to over 200 underserved students in grades K-5 using culturally responsive teaching, inquiry and the BSCS 5E Learning Model at the Roy C. Buley Center @ The Boys and Girls Club in Delaware County. Due to COVID-19, the face-to-face practicums were transitioned to virtual practicums facilitated by the elementary PSTs she trained virtually in Fall 2020 – Spring 2021. Another revision to her elementary and secondary science methods courses during this COVID-19 season was to train the PSTs how to implement inquiry science lesson plans and/or activities virtually to their peers. This shift in pedagogy required a paradigm shift for these PSTs, but Dr. Hill modeled and supported these PSTs in her 100 % virtual courses. In the TFS "Shadow a Scientist" experience the secondary PSTs gain new insight to see how authentic science happens. The TFS Ambassador program engages underserved students with an opportunity to perform authentic research, which in some instances lead to research publications, participation in science symposiums and/or submission to the regional science fairs in the state of Indiana. This program has partnered with a microbiologist in the biology department to secure an NSF grant to expand this program into a CURE +1 program to serve additional diverse underserve students, one graduate student, one post-doctoral students and several TFS Ambassadors over three years. Rona is the proud mother of one son and one daughter, a host of Godchildren, students and mentees.

Rona's research interests facilitated under the BSU Training Future Scientist Program (TFS) goals are to: 1) transform the PSTs she trains in her science methods courses how to be culturally responsive teachers for today's students, families and school communities; and 2) ensure her PSTs are confident and competent to provide authentic science instruction to diverse underserved groups in grades K-12 when they serve in their schools around the world. Hopefully this effective and passionate approach to transform these PSTs will equip them to build positive relationships in the schools they serve in with their students, families and school community. In Fall 2020 Rona was selected to serve on the BSU Anti-racist & Intersectionality Faculty Learning Committee along with 32-diverse BSU faculty and community members to create tool-kits to support the shift to make BSU a more inclusive and diverse environment that supports the teaching and learning of the entire campus and community.

**CADASE Steering Committee Co-publisher of the CADASE newsletter**

Stanton G. Belford, Martin Methodist College, Tennessee.



This year's 2021 National Association for Research in Science Teaching (NARST) theme, *Science Education, a Public Good for the Good of the Public? Research to Empower, Evoke, and Revolutionize* will be the first virtual online meeting for NARST. The meeting essentially will push us to cavalier our newly taught usage of online learning and presentation techniques. Social media combined with online learning platforms have taken forefront in presenting science education material to students and professionals. Although challenges occurred, we refocused with the intent to succeed, and succeed we did!

Science education in the public-school system makes a positive impact on students with the mentorship of the science educator. It is they who hold the keys to the gateway of initiating science interest in students. But the "*Hands-On*" way of doing this had to change,

therefore social media and online platforms were various avenues where science educators met to share and discuss their visions. One such meeting took place late November 2020 on Twitter when Black in Marine Science host Dr. Tiara Moore whom is currently a postdoctoral scholar at the University of Washington and The Nature Conservancy lead the charge to highlight **#BlackInMarineScience**

The week-long event highlighted a strong representation of black marine scientists. It channeled the plight of many black marine scientists who were the only ones SCUBA diving, which is altogether a rarity, but it opened the eyes of many, whom saw our purpose as one of representation, not only for us, but for the good of the public. The public must know that we exist. Many speakers, such as Dr. Ayana Johnson, a marine biologist and climate change policy maker and advocate, empowered us with her candor plight of our representation in science education. Another speaker, Danni Washington, the first African American black STEM-themed television host shared her past challenging experiences, which by and large felt as though we were not alone in our past experiences of microaggressions. Danni's confidence and knowledge taught us that we must revolutionize the way we represent ourselves in science education. That will lead us to revolutionizing science, not only for the science literacy, but for the good of the public.

### Meet Graduate Students Revolutionizing Science for the Good of the Public



Meet Salome Buglass, a marine ecologist and Ph.D. student at the Institute for the Oceans and Fisheries, University of British Columbia. She has a M.Sc. in Physical Geography from the University of British Columbia, Canada, and a B.Sc. in Geography from the University College London, UK. Salome is currently a marine ecologist at the Charles Darwin Foundation, Galápagos, Ecuador. Other jobs include project scientist of the Seamounts Research Project, Annual Ecological Sub-tidal Monitoring Program, and Shark Monitoring Program. Like many marine scientists of diverse backgrounds, Salome didn't have someone whom she credits her introduction to the Ocean, but she knew that she wanted to be a marine scientist after SCUBA

diving coral reefs in Tobago, which is part of the small twin island Caribbean country known as Trinidad and Tobago. The pristine beauty of the underwater world, scattered with colorful marine organisms, such as fishes and corals, set in the backdrop of the oceanic blue, really connected with Salome. Salome's parents always encouraged her and her sister to become stewards of the environment, hence it was only natural that Salome felt a deep bond with the Ocean.

Salome mentioned that she never really knew any marine scientist until attending graduate school. In fact, she actually studied Geography for her undergraduate (nothing marine related) in London, but then moved to Trinidad and Tobago, where there were no jobs in the environmental sector, hence had to take a job in an advertising firm. Eventually, Salome's break came in a scholarship to do a coral reef surveying course with Coral Cay Conservation (an NGO) where learning to dive initiated the introduction to corals. The science and nature followed by learning to survey Tobago's corals, which got her into a fully-funded Masters's program in Canada. Believe it or not, in her 6-year career in marine science, Salome has finally met an inspirational marine scientist, Dr. Sylvia A. Earle, that she can look up to and relate to, before that it was the ocean itself, that pulled her in.



Meet Josette McLean, a marine ecologist and Masters student at Hampton University, Virginia. Josette is seeking her Master's degree in Biology with a concentration in Environmental Science. She has a B.Sc. in Marine, Wildlife & Conservation Biology from St. George's University, Grenada. Her past accolades include being a recipient of a marine science and conservation scholarship from Duke University, and having research internships at the University of Alaska Fairbanks, as well as the U.S. Geological Survey.

Josette is originally from Trinidad and Tobago, however her research in marine science has a global nature. Her past research experiences include ocean acidification, working with eDNA, and looking at environmental resilience in marine environments, which has taken her to Alaska, Panama, and the United States.

Josette credits her interest in marine science after visiting Buccoo Reef, Tobago, while on a glass-bottom boat tour. She became captivated by the beauty of coral reefs and the biodiversity found surrounding it. Later, she learned the intrinsic ecological and economic value of the reefs, and that really sparked her interest in the ocean. However, Josette became concerned about the accelerated destruction of coral reefs as a result of coral bleaching, ocean acidification, climate change and anthropogenic disturbances, therefore Josette vowed to find ways to ameliorate these stressors, hence at just 15 years old, she set out on her journey to make a positive impact in marine science for the good of the public. Josette will begin her Ph.D. studies at Duke University in the Fall 2021.



Meet Arona Bender, a NOAA LMRCSC graduate fellow at Hampton University, Virginia. Arona mentioned that she cannot pinpoint an instance or an individual who influenced her in science, however she noted being a part of so many fantastic opportunities and gotten the chance to learn about or meet outstanding individuals who, to this day, continue to motivate me through her science journey. In fact, they all opened her mind to learning new things, enhanced critical thinking skills, and continued to develop her curiosity further about life, nature, and how it's all connected. They all just propelled Arona further into diving deeper into the world of marine science.

Growing up in a third world country, Guyana, South America, and spending most of her summers in the Berbice River with her grandparents, who were farmers and fishermen, Arona was exposed to science from a completely different perspective. Witnessing firsthand how interconnected communities are with the environment and how much of our livelihood and way of living depends on it is what continues to propel her drive in her current research. Arona's current research focuses on using genetic approaches to monitor climate change effects on leopard seals (*Hydrurga leptonyx*) in the Antarctic Peninsula. The United States is one of the largest consumers of Antarctic fishery products, such as krill. Therefore, understanding how the Antarctic ecosystem and krill-dependent predators such as leopard seals are being affected by global climate change through various anthropogenic effects can help implement better economic policies and mandates for that region, and for the public good.



Meet April Ellis, a doctoral student at the University of South Florida at the College of Marine Science. April received her Master's in Public Health, Environmental Health at Emory University Rollins School of Public Health, and a BSc. in Coastal Environmental Science at Louisiana State University. April credits her interest in science through her college experience. In fact, Louisiana State University reached out to her to join LSU's program at the College of Coast and Environment. This gave April the opportunity to explore her interests in oceanography, without having to pay an expensive amount to follow her dream. Although she is from Atlanta, Georgia, an inland state, she did not let that hamper her dream. In fact, she wanted to be near the water, specifically the ocean. Receiving an academic scholarship at LSU was the game changer, however she did not

stop there. April pursued graduate school where she focused on environmental policy. She loved it so much that she got her MPH in Environmental Health. April is making a difference for the good of science, and the good of the public.

**CADASE Steering Committee**

Dr. Mary Atwater- Chair of CADASE Atwater@uga.edu or matwaterchemi@bellsouth.net

Dr. Rona Robinson-Hill- Chair of Steering Committee rmrobinsonhi@bsu.edu

Dr. Shari Watkins – Membership/Publications/Secretary shari@american.edu

Dr. Brittany Garvin-Hudson – Treasurer bagarvin@gmail.com

Dr. Stanton Belford- Publications sbelford@martinmethodist.edu

Dr. Olayinka Mohorn-Mintah – Co-Graduate Student Representative – omohor2@uic.edu

Kelly M. Shepard – Co-Graduate Student Representative kshepar1@hawkiiit.edu

Dr. Justina Ogodo – Steering Committee member ogodo.1@osu.edu

## CADASE Research Interest Group

**Description:** Continental and Diasporic Africa in Science Education (CADASE) RIG is driven by the mission to support research in science education that will have a positive impact on the lives of people of African ancestry. This is accomplished by (a) encouraging science educators to engage in research aimed at meeting the needs of people of African ancestry; and (b) providing intellectual, professional, and personal space for science educators engaged in such research. At the 2021 NARST-CADASE RIG business meeting, members will continue to discuss plans to work on its unfinished business from the past year including: (a) to arrange for junior faculty to partner with senior faculty with similar research interests to possibly participate in cross-regional research and compare outcomes; (b) to establish a formal mentorship program for senior professors to mentor junior faculty through email and/or face-to-face interactions and to provide assistance and recommendations with job placements; (c) to work to recruit graduate science education scholars into CADASE RIG membership; (d) to establish relationships with science education faculty at HBCUs and MSIs that reside near NARST conference locations; and (e) to intensify efforts to establish a stronger relationship with science education scholars throughout the African continent.

### **CADASE Officers/Members and Duties**

**CADASE Chair-** shall be responsible for the general administration of the RIG, act as a liaison between the RIG and NARST, and preside at the Annual Business Meeting. The Chair shall write annual committee reports and submit them to the chair of the NARST Research Committee. The Chair shall also coordinate dates, times, and spaces for RIG business meetings and any sponsored events with the NARST executive director, work with the chair of the Steering Committee to determine any sponsored or co-sponsored activities at the annual NARST conference. The Chair shall appoint ad hoc committees as needed. The Chair shall also work with the Steering Committee to enact recommendations from the RIG membership. The Chair shall also be the lead co-chair of the CADASE Special Administrative Session Planning Committee.

**CADASE Steering Committee Chair-** shall lead the Steering Committee meetings, write annual committee reports and submit them to the Chair for use in the CADASE newsletter and at the annual business meeting. The Steering Chair shall work with the Chair to determine any sponsored or co-sponsored activities at the annual NARST conference and shall co-chair of the CADASE Special Administrative Session Planning Committee. The Steering Chair shall also work with the Chair and Steering Committee to enact recommendations from the RIG membership.

**CADASE Steering Committee Secretary-** The Secretary shall be responsible for the preparation of minutes, certify election results given by the Chair of the Nomination/Election Committee, and maintain the CADASE membership rolls. The Secretary shall communicate, as necessary, with the RIG membership. The Secretary shall also work with the Chair and the Steering Committee to enact recommendations from the RIG membership.

**CADASE Steering Committee Treasurer-** The Treasurer shall track all CADASE expenses and submit receipts to the NARST Executive Director. The Treasurer shall arrange for payment of expenses incurred by the RIG. The Treasurer shall also prepare budget reports for the Steering Committee and Annual Business meetings.

*Steering Committee Members*- responsibilities include to attend at least 75% of bi-monthly Steering Committee meetings and support CADASE Chair and Steering Committee Chair in carrying out organization's work. Committee members are expected to actively participate by holding an office, chairing sub-committees, creating the newsletter, planning conference events, and generally participating to assist in moving the work of the CADASE RIG forward.

*Graduate Student Representative*- responsibilities include attending Steering Committee meetings, and report information and activities of graduate students.

*Steering Committee Members on Standing Committees*- responsibilities include attending and reporting to the Steering committee with regards to specific areas of interests, as designated by the Steering committee.

## **CADASE Events at the 2021 Annual NARST Conference**

### **The Continental and Diasporic Africa in Science Education (CADASE)**

#### **Annual Business Meeting Agenda**

**Wednesday April 7, 2021, 12:30 - 1:30 p.m. (Eastern Time)**

Welcome	Mary Atwater
Acknowledgment of NARST Officers and/or Executive Board Members	Mary Atwater
Introduction/Acknowledgment of Steering Committee Members	Rona Robinson-Hill
Approval of Business Meeting Minutes from 2019	Shari Watkins
Financial Update for 2020-2021	Brittany Garvin-Hudson
Bylaws and Guidelines of Standing	Mary Atwater
Announcement of CADASE Events- Administrative Special Session, Poster session, Social Event at the 2021 NARST Conference	CADASE Representative
Breakout Sessions for Sub-Committees Business Meeting Special Session Planning Committee Graduate Student Committee Nomination & Election Committee Sharing of the Committees	Mary Atwater Mary Atwater, Rona Robinson-Hill Olayinka Mohorn-Mintah Committee representatives
Announcements, Recognition, Any Other Business	Mary Atwater
Adjournment	

## CADASE Special Administrative Session

*"Science Education, A Public Good for the Good of the Public?  
Research on and for the African Diaspora to Empower, Evoke, and  
Revolutionize."*

*Welcome:* Dr. Mary M. Atwater, Professor

*Introduction of the Speaker:* Dr. Terrell Morton, Assistant Professor

*Presenter:* Dr. Catherine Quinlan, Assistant Professor in Science Education

Department of Curriculum and Instruction at Howard University School of Education.

Dr. Quinlan graduated with her doctorate in Science Education from Teachers College, Columbia University. Prior to her current position she taught high school science for sixteen years and a STEM Education course to teachers all over the United States. Currently, Dr. Quinlan is funded by the National Science Foundation to create curricula products that are culturally representative of Blacks in America, with a focus on Gullah Geechee African Americans. Dr. Quinlan has made it her goal to bridge theory and practice. Her curriculum work on African Rock Art Image Analysis and her video clips and animation on her Visibility in STEM YouTube Channel provide unique examples of this work. Her desire for practical products led her to capitalize on her scientific and cultural understandings in her newly launched chapter book series for elementary aged students, titled *Keystone Passage*, which brings cultural representation into the formal and informal settings.

### Recent Publications

Quinlan, C.L. (2020). Analysis of preservice teachers' lesson plan to determine the extent of Transfer of argumentation. *International Journal of Science Education*.

<https://doi.org/10.1080/09500693.2020.1753125>

Quinlan, C.L. (2019). Use of schema theory and multimedia technology to explore preservice students' cognitive resources during an Earth science activity. *Contemporary Issues in Technology & Teacher Education*, 19(3), 413-438. <https://www.learntechlib.org/p/184160/>

Quinlan, C.L. (2019). An interdisciplinary investigation of African rock art images to learn about science & culture: Blending biology, geology, history, & ethics. *American Biology Teacher* 81(1), 37-43.

<https://doi.org/10.1525/abt.2019.81.1.40>

Quinlan, C.L. (2018). Use of Crime Scene Investigations in Anatomy and Physiology: Potential for Going Beyond Knowing in NGSS Dimensions. *American Biology Teacher* 80(3): 217-222.

<https://doi.org/10.1525/abt.2018.80.3.221>

Quinlan, C.L. (2016). Exploring Data to learn about the nature of science. *American Biology Teacher* 78(5): 404-409. <https://doi.org/10.1525/abt.2016.78.5.404>

Quinlan, C.L. (2015). Bringing Astrobiology down to Earth. *American Biology Teacher* 77(8): 5- 12.

<https://doi.org/10.1525/abt.2015.77.8.2> October feature article:

[http://www.nabt.org/websites/institution/File/pdfs/american\\_biology\\_teacher/2015/ABT\\_Online\\_Oct\\_2015.pdf](http://www.nabt.org/websites/institution/File/pdfs/american_biology_teacher/2015/ABT_Online_Oct_2015.pdf)

Quinlan, C.L. (2012). A Schema Theory Analysis of Students' Think Aloud Protocols in an STS Biology Context (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.



## **CADASE Special Session Poster Symposium 2021**

**Wednesday April 7, 2021, 1:45 – 3:15 p.m.**

### **Science Education, A Public Good for the Good of the Public**

In the last year, science educators had to be exemplary in their research and providing online learning. Science educators accepted the challenge and received ample learning in technologies and online learning forums. We now transferred in-person classroom learning to highly effective methods of online learning, and we re-dedicated ourselves to enhance enrichment, development, and learning of people from the continental and diasporic Africa. We faced challenges to address the implications of our work for the advancement and betterment of the Black community. Beyond reporting specific findings, we ascertain meaning that, in many ways, we apply within our teaching and service as we strive to make science education and learning more socially just, equitable, or restorative for Black people. This work, drawing and making meaning that we apply in our own practice and praxis, reflects a dualistic scholarly-activist approach that manifests in different ways.

In alignment with the 2021 NARST Theme, “Science Education, a Public Good for the Good of the Public?” the CADASE RIG is hosting a poster presentation as part of our 2021 Administrative session. We seek poster presentations that highlight the P-20 Science Education and Learning of people from the continental and diasporic Africa via scholar-activist approaches. We are interested in presentations that cover the dualistic nature of teaching, educating, and servicing Black people within and through science using a variety of conceptual, theoretical, and methodological approaches. Hence, CADASE’s theme for the poster session is “Science Education, a Public Good for the Good of the Public?” We are interested in presentations for a variety of audiences, including: PK-12 administration and in-service teachers; postsecondary scholars, practitioners, and administrators; and informal and community-based science educators and activist. We also invite science educators and activists, from these same affinity groups to submit presentations.

*Calls for future submissions will be shared via the CADASE Steering Committee. Please contact any CADASE Steering Committee member for additional details.*

## Congratulations to all 2021 CADASE Special Session Poster Symposium Presenters!

**Moderator: Brenda Brand**

### **Poster 1**

**Applying the Ecosystem Services Framework to Engage African American Undergraduate Students in Environmental Sciences.**

Mark Dugo, Johnson C. Smith University, Charlotte, NC.

### **Poster 2**

**Through Rated Responses to Cognitive Resources and Equity: Nigerian Students' Productive Beginnings Through Science Inquiry Responses**

Mark Akubo, Florida State University, Tallahassee, FL.

Oluwafunke Ogunya, Florida State University, Tallahassee, FL.

### **Poster 3**

**Collegiate Student Perspectives on Coastal Environmental Conservation**

Stanton Belford, Martin Methodist College, Pulaski, TN.

### **Poster 4**

**eNvision: A Collaborative Redesign of Pre-service Teacher Candidates and Faculty Experiences Through a Professional Development School Partnership**

Rona Robinson-Hill, Ball State University, Muncie, IN.

### **GRADUATE Student Accomplishments**

Mark Akubo was selected as the winner of the 2021 AERA STL SIG Graduate Student Research Award.

Jordan L. Henley was accepted into Ph.D. candidacy at the University of Georgia.

Kelly Shepard passed her dissertation proposal defense in May 2020, and submitted her full dissertation in February 2021. Illinois Institute of Technology, Chicago, Illinois.

Google, A.N., Gardner, G. E., Reid, J. Majewski, D., Tabakova, V., Mulcahy, K., & Dutta, S. (in press). Considering diverse learners in STEM by incorporation of universal design for learning principles with clickers. In J. J. Mintzes and E. M. Walters (Eds.). *Active learning in college science: The case for evidence-based practices* (Chapter 58). Berlin: Springer Nature.

Jones, R. S., Lovett, J., Google, A. N., & Mueller, A. (in progress). *Mathematizing variability: Teachers' invented statistics*. *Journal of Mathematical Behavior*.

Caukin, N., Google, A. N., & Brinthaup, T. (in press). *An analysis of teacher candidates' scientific perspective and its impact on learning and teaching*. *Electronic Journal of Science Education*.

Google, A. N., Grinath, A. S., & Gardner, G. (2020, January). *Exploring Women of Color's Conceptualizations of Studying Undergraduate Biology: A Cultural Analysis*. Poster presented at the annual meeting Tennessee STEM Education Conference. Cookeville, TN.

**CADASE Member Acknowledgements**

We encourage CADASE members to share their successes, awards, honors, publications, promotions, graduations, etc. with us on a regular basis. We want to hear of your accomplishments and celebrate them with you. Please send announcements to CADASE Secretary, Shari Watkins [shari@american.edu](mailto:shari@american.edu) and Newsletter Co-Editors, Stanton Belford [sbelford@martinmethodist.edu](mailto:sbelford@martinmethodist.edu) When you send your information please add “**newsletter accomplishments**” in the memo section.

**Mary M. Atwater (University of Georgia)** Mary M. Atwater, Malcolm B. Butler, and Rhea Miles presented a workshop at the 2020 International Association of Science Teacher Education in San Antonio, TX entitled “Successful Grant Writing.”

**Stanton Belford (Martin Methodist College)** promoted to Associate Professor and Program Coordinator, Biology, Martin Methodist College.

**Malcolm Butler (University of Central Florida)** was elected Director-at-Large of the NARST Board.

**Brittany Garvin-Hudson** accepted a faculty appointment at the University of Mary Washington as Assistant Professor of Science Education and Technology. Brittany recently completed a Postdoctoral Fellowship with Duke University School of Medicine in 2020 and will begin her new faculty position fall 2021.

**Justina Ogodo (Baylor University)** served as the Co-Chair for Strand 4 – Middle and Secondary Science from 2018-2020 and was recently selected as the incoming Co-chair for the Equity and Ethics committee. She assumed her new role as an Assistant Professor of secondary science education at Baylor University in August of 2019. This spring, 2020, she was chosen as one of the School of Education’s Featured Faculty Members, based on her many academic achievements and the exciting work she is already contributing to Baylor University. She published one article and four book chapters in 2019 and presented her work at five conferences; ASTE, NARST, SWASTE, MAASTE and SSMA.

**Dr. Peter Okebukola (Lagos State University)** is a professor of science and computer education has broken down barriers to the teaching and learning of difficult science topics using the culturo-techno-contextual approach (CTCA). According to a release by the Okebukola Science Foundation, its Executive Chairman, Peter Okebukola, who marked his 70th birthday on February 17, 2021, with official launch of the free mobile CTCA app 1qa use by STEM teachers and students all over the world for improving students’ performance in science. Read more about the culture-techno-contextual approach at: <https://www.vanguardngr.com/2021/02/okebukola-launches-mobile-app-for-teaching-difficult-science-concepts/>

**Peter A. Okebukola (Lagos State University)** proposal accepted to present at the 2021 National Association for Research in Science Teaching Conference, Virtual Conference entitled *Can the Culturo-Techno-Contextual Approach (CTCA) Dissolve the Barriers of African Students to Learning Difficult Concepts in Biology?*

**Peter A. Okebukola (Lagos State University)** proposal accepted to present at the 2021 National Association for Research in Science Teaching Conference, Virtual Conference entitled *Opening the Gate of Logic Gate as a Difficult Topic in Computer Studies in Nigerian Secondary Schools: Can CTCA be the Key?*

**Peter A. Okebukola (Lagos State University)** proposal accepted to present at the 2021 National Association for Research in Science Teaching Conference, Virtual Conference entitled *In Search of New Tools for Meaningful Learning in Chemistry – We Stumbled on Culturo-Techno-Contextual-Approach.*

**Melody Russell (Auburn University)** received the 2021 College of Education Outstanding Commitment to Diversity and Inclusion Award.

**Melody Russell (Auburn University)** is the recipient of the 2020 David P. Butts Award for outstanding alumni of the Science Education program at UGA.

**Melody Russell (Auburn University)** was selected as 2019-2020 Auburn University College of Education SGA Faculty Member of the Year.

**Melody Russell (Auburn University)** appointed to the Presidential Task Force for Opportunity and Equity to provide insight on DEI professional development.

**Robinson-Hill, RM. (Ball State University)** BSU Multicultural Achievement Award, Dr. Robert O. Foster Faculty/Professional Staff Award May 2020. This award is intended to recognize a full-time faculty or professional staff member who exemplifies the spirit of Dr. Foster's many years of dedication and service to BSU students.

**Robinson-Hill, RM. (Ball State University)** Muncie Vivian Conley Award from the Women's Equality Day Committee for Educational Empowerment 2019. She received this award for her innovations in preparing elementary and secondary pre-service teachers at Ball State University.

**Leon Wells (University of Vermont)** was elected Director-at-Large of the NARST Board.

### *CADASE Member Publications*

**Atwater, M. & Robinson-Hill, R.M.** (2018). Science Advocacy and Policy for Black Children in Georgia: Being Black Does Not Have to be a Risk Factor. In "Being Black is Not a Risk Factor: Statistics and Strengths-based Solutions in the State of Georgia", 40-43. Silver Spring, MD: National Black Child Development. Retrieved from <https://www.nbcdi.org/sites/default/files/BeingBlackIsNotARiskFactorGeorgia.pdf>

**Belford, S.G.** 2020. Spatial abundance and colour morphotype densities of the rock-boring sea urchin (*Echinometra lucunter*) at two different habitats. *Thalassas: An International Journal of Marine Sciences* 36(1): 157-164.

**Quinlan, C.L.** 2020. Exploring the lived experiences and narratives of the African American Gullah Geechee peoples to create culturally relevant STEM curriculum. National Association for Research in Science Teaching International Conference, Portland, OR.

**Quinlan, C.L.** 2020. Exploring the science concepts, scientific data, and meaning of environmental sustainability for the African American Gullah Geechee. The Association for Science Teacher Education (ASTE) International Conference, San Antonio, TX.

McGowan, B.L., Jones, C. T., Boyce, A. S., & **Watkins, S. E.** (2021). Black Faculty Facilitating Difficult Dialogues in the College Classroom: A Cross-Disciplinary Response to Racism and Racial Violence. *The Urban Review*. <https://doi.org/10.1007/s11256-021-00598-y>

**Mensah, F.M.** 2019. Finding voice and passion: Critical race theory methodology in science teacher education. *American Educational Research Journal*, 56(4), 1412-1456.

**Mutegi, J.W. & Momanyi, L. O.** 2020. Windows and mirrors: three images of the US science curriculum as reflected through Kenya's Jua Kali. *Cultural Studies in Science Education*. doi: <https://doi.org/10.1007/s11422-019-09967-2>

**Mutegi, J.W., Sorge, B. H., Fore, G. A. & Gibau, G. S.** 2019. A tale of two camps: A mixed methods investigation into racially disparate outcomes in a nanotechnology research experience. *Science Education*, 103, 1456-1477. doi: <https://doi.org/10.1002/sce.21548>

Miner, J.Z. & **Robinson-Hill, RM.** 2021. Integrating Feminist Pedagogy into Science Teacher Education. Submitted to *Science Education & Civic Engagement, an International Journal*. 13:1 Winter 2021.

Brown, R. & **Robinson-Hill, R.M.** 2021. *eNvision: Collaborative Redesign Partnership*. Submitted to *Collaborations: Journal of Community Based Research and Practices*. *Collaborations: A Journal of Community-Based Research and Practice*. (Accepted).

**Robinson-Hill, R.M.** & Watkins, SE. "The Training Future Scientist Pedagogy's Impact on Elementary Pre-Service Teacher's Fears to Teach Underserved Groups in the Midwest." Revised and re-submitted February 2021.

Renschler, M., Wyatt, A., Anene, N., **Robinson-Hill, R.M.**, Pickerill, E., Fox, N., Griffith, J., McKillip, J. 2020. Using Nitrous Acid Modified MRS Medium to Selectively Isolate and Culture Lactic Acid Bacterial from Dairy Foods. *Journal of Dairy Science*. *J. Dairy Sci.*103(2):1215-1222.

**Robinson-Hill R.M.** 2019. Building a bridge for marginalized high school students in Indiana. *CUR Biology News*. 9(1), 1-11. <https://www.cur.org/Assets/1/7/win19CURBiologyDivNL.pdf>

**Robinson-Hill, R.M.** Faculty Perspective. *Fine Focus an International Microbiology Journal for Undergraduates*. Volume 4(1) pp. 13-16, Spring 2018.

**Robinson-Hill, R.M.** 2018. "We Can Do Science" Using iClickers & Biological Science Curriculum Study 5E Learning Model & Inquiry with Underrepresented & Marginalized Students in Midwest After-school Programs. *Proceedings of EDULEARN 2018 Conference*. ISBN: 978-84-09-02709-5, pp. 7131 - 7139.

**Robinson-Hill, R.M.** (2018) The Training Future Scientist Program Impact on Pre-service Teachers' Fears to Teach Science and Provide Science Access to Underserved & Marginalize Elementary Students in the Midwest. *Proceedings of EDULEARN 2018 Conference*. ISBN: 978-84-09-02709-5, pp. 7241 - 7248. July 2-4, 2018.

### *CADASE Member Presentations*

**Atwater, M. M.**, Butler, M. B., Miles, R., & Russell, M. (2021, January). Successful grant writing. Workshop at the Virtual Association of Science Teacher Education International 2020 Conference.

Henley, J., Lin, L., Heil, A.D., & **Atwater, M. M.** (2020, January). Establishing a science education assessment instrument: Paper-Format Implicit Association Test for Black and Latino. Submitted to CADASE RIG Poster Session, 2020 NARST Annual International Conference, Portland, OR.

**Atwater, M. M.**, Butler, M. B., & Miles, R. (2020, January 10). Successful grant writing. Workshop at the Association of Science Teacher Education International 2020 Conference, San Antonio, TX.

Rainey\*, T., Kilian\*, S. **Belford, S.G.** (2021, March). Morphological and molecular identification of the Saddle Crayfish: *Faxonius durrelli* (Decapoda: Cambaridae) along streams throughout Giles County, Tennessee. 82th Association of Southeastern Biologists Virtual Meeting (poster).

**Belford, S.G.** (2021, March). Coastal biodiversity and phylogeny on coral reef communities along the north-eastern coast of Trinidad: A race to share scientific knowledge in the wake of ecological risks associated with benthic destruction resulting from a proposed port development. 82th Association of Southeastern Biologists Virtual Meeting (poster).

**Belford, S.G.** (July 2021). Island biodiversity and phylogeny on coral reef communities in the wake of ecological risks associated with port development in a developing country. 14<sup>th</sup> International Coral Reef Symposium Virtual Conference (poster).

Kilian\*, S., **Belford, S.G.** (2020, November). Molecular identification of three freshwater crayfish species at streams in Giles County, Tennessee. 130<sup>th</sup> Tennessee Academy of Science Conference (poster). East Tennessee State University, Johnson City, Tennessee (online conference).

Gee, V., & **Mutegi, J.W.** (2019, November). *Culturally critiquing the curriculum*. Presentation at the Midwest Annual Robert Noyce Conference, St. Louis, MO.

Howard, L., & **Mutegi, J.W.** (2019, November). *Examining the effectiveness of a community lecture on Black racial identity*. Poster presented at the Midwest Annual Robert Noyce Conference, St. Louis, MO.

**Mutegi, J.W.** (2020, January 25). *Socially transformative STEM curriculum: What is it? How does it work? Should I do it?* Invited workshop conducted at the FSU-Teach STEM Teaching Workshop. Florida State University: Tallahassee, FL.

**Mutegi, J.W.** (2019, June). *Using documentary films to teach socially transformative STEM curriculum*. Invited presentation delivered at the Southeastern Regional Robert Noyce Conference. University of South Alabama: Mobile, AL.

**Mutegi, J.W.** (2019, June). *Examining the self as teacher: Strategies for recruitment through a Noyce summer internship*. Invited presentation delivered at the Southeastern Regional Robert Noyce Conference. University of South Alabama: Mobile, AL.

**Mutegi, J.W.**, & Anderson, C. D. (2019, July). *Examining the self as teacher: Reflection exercises to support consideration of STEM teaching careers*. Poster presented at the annual Noyce Summit, Washington, DC.

**Robinson-Hill, RM.** (2020, March 17) "*The Training Future Scientist Pedagogy's Impact on Elementary Pre-Service Teacher's Fears to Teach Underserved Groups in the Midwest.*" This proposal was submitted for a poster to present at the CADASE Special Administrative session @ NARST 2020. Due to COVID-19 the conference was canceled.

Brown, Rebecca, **Robinson-Hill, RM.** & Heidi White (2020, February 15) "*eNVision: A collaborative redesign of pre-service teacher (PST) candidate and faculty experiences through a Professional Development School (PDS) Partnership.*" We submitted a proposal to the National Association of Professional Development Schools (NAPDS).

**Robinson-Hill, RM.** (April 2, 2019) "*The African-American Female Researcher Impact on Elementary Pre-service Teacher at a Predominately White Institution (PWI) in the Midwest.*" Poster presentation at the CADASE Administrative session.

**Robinson-Hill, RM.**, Wyatt, A. & Anene, N. (February 2019) "*Training Future Scientist Ambassador Program: Building a Bridge for Underserved Students in Delaware County, IN.*" Presentation presented at the HASTI Annual Conference, Indianapolis, IN February 2019 with two Training Future Scientist Ambassadors.

**Robinson-Hill, RM.** & Yontz, J. (February 2019) "Access to Authentic Science Research: The Missing Link to Effective Secondary Teacher Development". Presentation presented at the HASTI Annual Conference, Indianapolis, IN February 2019 with one of my secondary PSTs.

### Contributions to Professional Organizations

#### Mary Atwater

- Lead the effort for the adoption by the CADASE Steering Committee of the responsibilities of the Special Administrative Session Planning Committee.
- Submitted the CADASE Bi-annual Reports to the NARST Network Committee.
- Member of NARST Elections Committee.

**CONGRATULATIONS!**

*We are very proud of your accomplishments and wish you continued success in your career goals!*

### Upcoming Events Dates



National Conference Virtual Event

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

# ACCEPTING EDUCATIONAL RESPONSIBILITY

2021 VIRTUAL ANNUAL MEETING  
APRIL 8-12, 2021



## 2021 Annual American Association of Blacks in Higher Education Conference

March 15-16, 2021

Conference Theme:  
**Innovative Solutions for the Next Era of Higher Education**

We're excited to announce **Nikki Giovanni** as this year's

*Keynote Presenter!*



### NIKKI GIOVANNI

I am 71 years old. I have been awarded an unprecedented 7 NAACP Image Awards which makes me very, very proud. I have been nominated for a Grammy; been a finalist for the National Book Award. I am very proud to have authored 3 New York Times and Los Angeles Times Best Sellers, highly unusual for a poet. I am a University Distinguished Professor at Virginia Tech. I don't have a lot of friends but I have good ones. I have a son and a granddaughter. My father, mother, sister, and middle aunt are all deceased literarily making me go from being the baby in the family to being an elder. I like to cook, travel, and dream. I'm a writer. I'm happy.

THIS WILL BE A VIRTUAL EVENT.

Early-bird rates end **February 1, 2021.**

#### REGISTRATION FEES

Early Bird Members	\$99
Regular Price	\$125
Early Bird Non-Members	\$155
Regular Price	\$199
Students and Retirees	\$99

## *CADASE Graduate Student Committee: Calling all Graduate Students!*

Our virtual 2021 NARST International Conference brings exciting and innovating networking opportunities. Join us on April 8, 2021 from 3:30-5:30 p.m. (EST) for the following:

**3:30-4:10 p.m.** CADASE Social: Intriguing Scenes from Movies and TV Shows

**4:15-5:30 p.m.** CADASE Graduate Student Fireside Chat: Navigating Academe with Success, featuring Dr. Brittany Garvin-Hudson, Dr. Terrell Morton, Dr. ReAnna Roby, and Dr. Shari Watkins. Our panelists will discuss their early career experiences and offer advice to doctoral candidates and newly conferred PhD graduates.

# CADASE GRADS FIRESIDE CHAT



Dr. ReAnna Roby



Dr. Terrell Morton



Dr. Brittany Garvin-Hudson



Dr. Shari Watkins

**Join the CADASE Graduate Student Committee** which is dedicated to support graduate students interested in conducting research in science education that will have a positive impact on the lives of children of African ancestry. If you are interested in serving, please attend the CADASE business meeting. For additional details about the CADASE Graduate Student Committee contact the Graduate Student Committee Chair, Olayinka Mohorn-Mintah (omohor2@uic.edu).

### ***CADASE Call for Service***

As we prepare for the upcoming NARST 2021 virtual conference, it is my pleasure to bring to the attention of the CADASE membership, where there are positions that need to be filled at the CADASE business meeting. The tenure for all positions is three years. Please consider nominating yourself or someone you think can do the job. CADASE RIG is always looking for members to serve on the CADASE Steering Committee. We welcome all who are interested in being a Steering Committee member to attend our business meeting, and to make suggestions for any new activity that you would recommend for CADASE to pursue in the coming years.

In preparation for the 2021 CADASE RIG Business Meeting held at the virtual NARST Conference (April 7th – 10th, 2021). Below, you will find information on how to **virtually** nominate individuals for the open offices in the CADASE Rig. Only members of CADASE can nominate someone for an office.

#### **Nomination Process:**

To nominate someone for the open 2021 CADASE RIG Officers please complete the “Nomination Form” that is included with this call. Nominators must provide the following information about their nominee:

Nominee Name (First and Last)

Nominee Contact Information (Email and Phone)

Office You Are Nominated Them For

Written Justification for Why the Individual Should Hold the Office.

In what ways have they already participated in and contributed to CADASE or will contribute to CADASE in the future.

Proof of Eligibility for Office Nominated

All nominated officers must be paid members of NARST and the CADASE Rig

Nominator Name

Nominator Email

(Please see pages 6-7 of this newsletter for a description of eligible offices)

**Nomination Link (Due March 21, 2021):** <https://tinyurl.com/2021CADASENom>

*As a reminder, you must be paid members of NARST and members of the CADASE RIG in order to hold office.*

Nominations and Elections Timeline:

Call for Nominations: February 24th – March 21st

Nominee Interest and Eligibility Check: March 22nd – March 26th

Virtual Elections: March 29th – April 5th

Announcement of Winners: CADASE Business Meeting – TBD

### **American Educational Research Association *Dissertation Grants***

With support from the National Science Foundation, the American Educational Research Association (AERA) Grants Program seeks proposals for Dissertation Grants. The AERA Grants Program provides advanced graduate students with research funding and professional development and training. The program supports highly competitive dissertation research using rigorous quantitative methods to examine large-scale, education-related data. The aim of the program is to advance fundamental knowledge of relevance to STEM policy, foster significant science using education data, and build research capacity in education and learning. Dissertation Grants (aera.net)

**CADASE/NARST Membership**

The Continental and Diasporic Africa in Science Education (CADASE) Research Interest Group (RIG) Steering Committee would like to extend our sincere thanks and appreciation for your financial contributions and donations over the years. Because of your generosity, we have been able to fund special sessions and other equity initiatives in science education that support our core mission and values.

As Treasurer of CADASE, I encourage you to renew your NARST membership for 2021, which makes you eligible to be a CADASE RIG member. I invite you to support CADASE through donation and financial contributions. To donate to CADASE at the time of NARST membership renewal, enter the designated amount in the box located to the right of the line “the Continental & Diasporic Africa in Science Education.” NARST is a 501 (c) (3) organization and your donation may be tax deductible to the extent allowed by law. *The NARST tax ID number is 42-1047684.*

In addition, as we prepare for the first virtual 2021 Annual International NARST Conference, CADASE invites you to participate in upcoming RIG events – the CADASE Administrative Session and CADASE Business Meeting. The 2021 conference theme is, Science Education, A Public Good for the Good of the Public? Research to Empower, Evoke, and Revolutionize.

Like many of you, this year has presented unprecedented challenges and demands. And though you may feel whatever you do will not be enough. In the words of President Obama, “try anyway.”

Please let me know if you have any questions, bagarvin@gmail.com.

Warm regards,

Brittany Garvin-Hudson, Ph.D.  
CADASE Treasurer

**REPORT OF THE TREASURER**

**Brittany Garvin-Hudson, Ph, D., CADASE Treasurer.**

In account with the Continental and Diasporic Africa in Science Education (CADASE) Research Interest Group (RIG) of the National Association for Research in Science Teaching (NARST)

**CADASE Financial Summary & Overview**

<b>Date</b>	<b>Amount</b>	<b>End of Year Donation Totals</b>	<b>Balance</b>
12/31/2016	\$1656.00	-	\$1656.00
12/31/2017	\$1656.00	\$626.00	\$2282.00
12/31/2018	\$2282.00	\$342.00	\$2721.00
12/31/2019	\$2721.00 (-164.63 adjustment)	\$702.00	\$3258.37
<b>12/31/2020</b>	<b>\$3258.37</b>	<b>\$529.00</b>	<b>\$3787.37</b>

CADASE Newsletter Co-Editors for the 2021 Issue

Stanton Belford (sbelford@martinmethodist.edu) & Shari Watkins (shari@american.edu)

## **CADASE Mission Statement**

The mission of **CADASE** is to support research in Science Education that will have a positive impact on the lives of people of African ancestry. This is accomplished by encouraging Science Educators to engage in research aimed at meeting the needs of people of African ancestry, and providing intellectual, professional, and personal space for Science Educators engaged in such research.

