Greetings BioQUESTer’s

We had so much fun in July with BIOME that we ended up skipping our July issue! Sorry about that folks! Now for a quick BIOME recap:

The theme of the 2023 BIOME Institute is “Igniting IDEAS: Inclusive, Diverse, Equitable, and Accessible Communities Leading Change in STEM Classrooms.” In alignment with the theme, BioQUEST created a hybrid experience for this year’s workshop. Week one took place online July 10-14, and extended into an optional in-person gathering on July 24-27 at the University of New Hampshire in Durham.

The first virtual week on July 10-14 included keynotes, workshops, poster sessions, and discussion sessions. The keynotes bookended the online session with Dr. Zakiya Willson-Kennedy kicking us off with a talk entitled “Learning and Belonging in the AI Revolution.” Dr. Brett Woods helped us to close out with his talk “Fixed vs Growth Mindset and Why the Biggest Challenge May be Faculty.” We were super lucky to have a diverse group of workshops this year from podcasts and AI to environmental justice and UDL all through a social justice/IDEA lens.

Throughout the week participants were invited to pitch ideas and form working groups around topics people were interested in. In the weeks following participants will continue to refine their ideas and join working groups for the fall.

We called the in-person workshop a community camp and kicked off the week with a picnic complete with roasting marshmallows and friendship bracelets. During the rest of the week we focused on building connections among projects finding common strengths, challenges, and opportunities as well as building community among participants. Check out this highlight reel photo album that Sarah Prescott put together for us.

Stay tuned for updates on fall working groups and more!

P.S. If you’re coming across this newsletter on the QUBES...
In this newsletter:

BioQUEST News

- Fall FMNs Teaser
- Featured Publications

Partner Corner
News and Opportunities

- OCELOTS’ Fall Incubator Accepting Applications (Deadline August 12th)
- Gordon Research Conference at Bates College
- LabXchange’s Data Science–Driven Science Education Project
- Incorporating Climate Justice in the Classroom

QUBES Corner

36 open educational resources were published to the QUBES Library in March with 2,780 resources in total. Browse the new resources here.

- Featured Resources
  - Walkabout: An Easy to Use, Experiential Learning Activity for Applying Abstract Concepts to the Real-World (CourseSource)
    In Walkabout, students learn about and discuss the key characteristics of a concept or phenomenon using pre-class readings, reading responses, and class discussion of classic examples. Then, students leave the learning space to walk outside, identify, and photograph examples of the phenomenon. They return to the classroom or online learning space having selected their best example, which they present to the class and engage in a discussion of how well it represents the phenomenon.
  - Functional trait-based restoration. Can hybrid restoration enhance invasion resistance and ecosystem services? (OCELOTS)
    A hybrid restoration experiment in Hilo, Hawai‘i, in an area of high biocultural conservation value, that address the ecological and philosophical issues involved in conducting restoration with a combination of native and introduced species.

Upcoming Events

August 30 Making the Case for Open Educational Resources (Webinar)
November 2-5 NABT (BioQUEST staff will be there, so come say hi!)

If you would like to share an event with us, reach out to Molly Phillips!

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BioQUEST News

Fall 2023 Faculty Mentoring Network Teaser!

Faculty Mentoring Networks (FMNs) are long-term, low-intensity professional development opportunities hosted through QUBES. An FMN brings a small group of like-minded educators together to: discuss pedagogy; share resources; adapt, implement, and share teaching materials; and create a community around a given topic.

There are several BioQUEST partners hosting Fall 2023 FMNs including BioGraphI, QB@CC, BioTA and Nanopore. BioQUEST is also facilitating an Inclusive STEM Teaching Project Learning Community again! More details are coming soon so stay tuned, or contact Molly Phillips with any questions!

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Featured Publications

We are so proud of the amazing scholarly work that is coming out of our community. Congratulations to the authors and thank you for your work.

Cultural Studies of Science Education, August 2023

“Framing and determining science content and standards for cultural representation of African American heritage in science content knowledge”

Catherine L. Quinlan

This paper is part of a larger NSF funded research project that situates the lived experiences and narratives of African Americans and Black heritage in the K-12 science curriculum.

If you have published a paper related to your work with BioQUEST and/or the QUBES platform, please let us know (send the link to Molly)!
Partner News and Opportunities

OCELOTS Fall Incubator

Are you interested in creating an online, open-source module in tropical biology that is based on your own research? Apply now to join us for the Fall 2023 – Spring 2024 Incubator hosted by OCELOTS (Network for Facilitating Online Content for Experiential Learning of Tropical Systems) & BioQUEST/QUBES.

Participants in this Incubator will create an online module in tropical biology for use in undergraduate life science courses, with the module hosted on the Gala platform. This will likely involve taking your case study that is based on your own research and working with a team of 1-3 mentors who will enable you to use best teaching and learning practices, the Ecological Society of America's 4DEE framework, media, and/or interactive data tools. As part of the process, teams will participate in bi-weekly virtual sessions to collaborate with and support others in the network. Applications are due August 12, 2023. Learn more and apply here.

Gordon Research Conference at Bates College

The nearly 200 educators from across the country who gathered June 25 - 30, 2023, at Bates College for the Gordon Research Conference came to share new research on ways to make biology education more inclusive, diverse, and accessible in a setting aimed at fostering intense and intimate collaboration. BioQUESTer's Sarah Prescott and Sharon Homer-Drummond presented a poster which you can find here. Read a summary of the event from Deirdre Stires published by Bates College.

LabXchange's Data Science–Driven Science Education Project

Why dabble in data science? Dr. Catherine Quinlan, Associate Professor of Science Education at Howard University and collaborator on LabXchange's Data Science–Driven Science Education Project, highlights the many benefits that learning data science can bring to a student's educational and professional careers. Read more about this initiative and why data science is for everyone in this article written by Dr. Quinlan.

Incorporating Climate Justice in the Classroom

During the virtual BIOME, Sonya Remington Doucette and Heather Price shared some modules that they and colleagues have developed for teaching Climate Justice in
the classroom and we wanted to pass them along to the broader BioQUEST community. See links below!

- **Systems Thinking and Civic Engagement for Climate Justice in General Chemistry: CO2 and PM 2.5 Pollution From Coal Combustion** (Sonya Doucette)
- **Carbon Dioxide Birthday** (Heather Price)
- **Climate Justice and Health Impacts of Methane (So-Called Natural Gas) in General or Introductory Chemistry** (Heather Price)
- **Redlining Practices of the 1930s Leading to the Effects of Extreme Heat Waves Today** (Tracy Fields)
- **Clearing the Air through Climate Justice and Civic Engagement** (Jessica Wang)
- **Transitioning to Renewable Fuels – The Good, the Bad, and the Ugly** (Grady Blacken)