

Education Update – July 2023

Prepared by Catrina Adams, BSA Education Director

Education Committee Meeting: Ideas for 2023/2024 Activities:

- **The Education Committee met on July 12, 2023. Several ideas for 2023/2024 activities were discussed:**
 - A Symposium/panel for Bessey Award winners and/or their students, utilizing Bessey earmarked funds, potentially for Botany 2024
 - A Botany 360 and/or workshop at Botany 2024 about AI, VR etc. impacts and opportunities in botanical education (sponsored by Teaching Section, co-sponsored by Education Committee). Additional event or specific focus of main event on these technologies and teaching plant identification skills.
 - Calling on BSA members to help update state-by-state regional botany resources on the Botany.org website.
 - Starting goal is to have the most comprehensive undergraduate student-appropriate state flora/field guides listed for each state. This would be useful for faculty who want to refer students to their local flora, or for botanists moving from one region to another...just generally a useful resource that doesn't appear to be easily found elsewhere
 - Additional information could include regional botany programs or resources
 - We would ask members to add information in each category using a google form, education committee will vet resources and compile for the website.

Bessey Award:

- **The [Bessey Award](#) ad-hoc Committee selected two Bessey winners for 2023, Dr. Cynthia Jones and Dr. Eddie Watkins**
- This year there were three nominations for the Bessey Award
- The revised assisted nomination process and form worked well last year, and this year there were three additional changes:
 - require a letter from a current mentee at the institution
 - utilize the Ethical Guidelines for Nominated Awards and Invited Speakers/Panelists form for each letter writer
 - allow all the nominees last year to be resubmitted for this additional year by the lead nominator, as long as they adhere to #1 & 2 (they solicit the form from their letter writers).

Botany 360

- Rachel Jabaily hosted a Botany 360 on Nov 2 on "[Utilizing Botany Conference Content in your Teaching](#)".
 - Take home summary: attendees were positive about using Botany content in teaching, recommend making selected talks available to students directly via easily-accessed (YouTube) account. Some ideas for obtaining opt-in consent from prospective presenters were discussed, including additional opt-in to being contacted by educators for more information/invitations for classroom visits. Lots of support for Hybrid Botany and Botany 360 from audience.

Education/DEI Staffing:

- We are continuing to work with two excellent [PlantingScience Coordinators, Jin \(Ching-Yi\) Liao \(University of California-Davis\) and Shan Wong \(Texas Tech University\)](#). These coordinators are working on contract supported by the PlantingScience F2 grant to help Education Programs Supervisor Jennifer Hartley to manage the PlantingScience community. We're excited to have

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these experienced coordinators working with us this fall on the larger-than-usual PlantingScience Fall Session which includes the F2 research participants.

Grant Funding Updates:

- **NSF DRK-12 F2 grant work is entering year Y3**, a critical year for recruiting and implementation of research study (NSF DRL#2010556, C. Adams PI, 3.9M, 2020-2025). Details available: https://www.nsf.gov/awardsearch/showAward?AWD_ID=2010556&HistoricalAwards=false
 - Collaborative teacher/scientist professional learning (PL) workshops are taking place this summer. Our first in-person workshop was held June 20-23 at BSCS Headquarters in Colorado Springs, Colorado. We then had two online professional learning workshops the weeks of June 26-July 7. The final in-person workshop will take place from July 17-20 in St. Louis Missouri at the Missouri Botanical Garden.
 - We have had significant attrition on the teacher side for the workshops this summer, and so we may need to repeat the recruitment process for a second year to get the numbers we need for the research. We had already planned to hold online PL sessions next year for the teachers who were our control group this year. Additional recruitment and another round would mean adding an additional online PL session as well as at least one more in-person session.
 - We have nearly completed the current round of new development with the HubZero team (our platform providers) which includes some anticipated improvements to user interface and to add new data tracking and mentor matching capabilities. Some of these new features have already been rolled out and were in use for the summer PL workshops.
 - **Mentors are urgently needed for Fall 2023/Fall 2024 sessions to support the research participants.** We will be sending a number of calls for mentors through BSA channels over the rest of the summer and into early Fall. **Please help us by passing along these calls for mentors as you see them!**
- **Botany and Beyond grant (NSF DEB#2138730):**
 - **The project is undergoing facilitated restructuring with help from a contracted facilitator.**
 - Heather Cacanindin is taking over as coPI on Botany and Beyond, replacing Catrina Adams.
 - The PLANTS program will continue in 2023/Boise, with Heather Cacanindin leading the effort with support from Ann Sakai and contracted coordination support from PLANTS alum Maria Morrow.
 - The Science Identity Workshop took place this April at the Smithsonian in Washington D.C., led by Anna Monfils with contracted coordination support from Molly Phillips.
 - The future of the Inclusive Teaching Initiative (CC/TCU faculty-supporting arm of the Botany and Beyond grant) is still being worked out as part of the facilitated restructuring process.
- **ROOT & SHOOT RCN (NSF DBI #2134321):**
 - BSA currently represented on the steering committee of the ROOT&SHOOT RCN by Brenda Molano-Flores and Catrina Adams.
 - SACNAS/MANRRS Travel Awards
 - Two student/mentor pairs have been selected to attend Botany as part of these ROOT&SHOOT sponsored awards.
 - Keily Peralta & Ayress Grinage (Cornell)

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- Betsabé D. Castro Escobar & Jesus Martinez-Gomez (Berkeley)
 - ROOT&SHOOT are covering travel and lodging expenses for these attendees.
 - BSA and ASPT agreed to split registration fees to cover these 4 attendees (Johanne will bill appropriately after the conference.
 - BSA has committed to including the travel awardees in our awards recognition event. Theresa Smid (ASPT) is serving as a contact-person to help the pair with any questions or concerns, and to orient them to the conference and point them towards events of interest.
 - More information on the awards and our involvement:
<https://docs.google.com/document/d/17Hpi4L3eXRViCx8w8kKmZUnoblw9fYSs6KUIH7ra0o/edit>
- Inclusive Conference Working Group (ICWG) Recommendations
 - First (model) working group for ROOT&SHOOT. Included 28 members in 5 subgroups, including 10 BSA/ASPT representatives. Working group members receive a small stipend to support their efforts.
 - The ICWG has drafted recommendations covering 5 topics:
 - An RCN-wide **Community Agreement** for conferences and participants, outlining principles and standards that support equity and inclusiveness,
 - A **reporting structure** that ensures accountability and compliance with the Community Agreement,
 - A **transparent site selection** process that incorporates considerations regarding safety and inclusion of all potential attendees,
 - Guidelines for practices that improve **conference accessibility**, including for those with disabilities and young families,
 - Guidelines for **inclusive selection of speakers and equitable programming**.
 - Additional BSA members provided feedback which was incorporated into the recommendations.
 - While expect these to undergo iterative development and refinement, current set of recommendations is available here:
<https://drive.google.com/file/d/1PAuwT24pAug12LqvteeLPRJTa2fJwEuV/view>
 - ROOT&SHOOT is making efforts to support some of these recommendations being implemented during conferences this year (see bystander training and Joint conference ombuds sections below).
 - More information on the Working Group is available on the ROOT&SHOOT website:
<https://rootandshoot.org/inclusive-conferences-working-group-update/>
- Bystander Training for ROOT&SHOOT partner conferences
 - ROOT & SHOOT scheduled two Bystander Intervention Trainings for members of the RCN, provided by the [ADVANCEGeo partnership](#). These workshops were held on Tuesday, June 27 from 11am-2pm EDT and Monday, July 10 from 3-6pm EDT.
 - We had 32 BSA affiliated people register for the training
 - Joint Conference Ombuds/Reporting Structure/Community Agreement
 - The Inclusive Conferences working group recommendations include many recommendations related to a conference community agreement and reporting mechanisms for creating accountability.
 - ROOT&SHOOT has contracted with two consultants (Bathabile Mthombeni, J. D., M. S. LODc, PCC (helped BSA with training related to last strategic planning effort) and Laura

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Minero, PhD, LP. **Purpose:** *To create a sustainable and responsive process of accountability, understanding, healing and transformation that is responsive to instances of harm and oppression and provide mediation support in the interim, at 2023 conferences.*

- One of the two consultants will be attending the Botany conference to provide in-person mediation and reporting support.
- ROOT&SHOOT will cover the cost of this for 2023. Future suggestions to align practices with suggestions of the inclusive working group and sustainability of a new, more inclusive system of accountability will continue after being informed by the 2023 conference season.

BSA Capstone projects: last phase of ROOT&SHOOT Equity Training (Movement Consulting)

- Over 20 BSA members, leaders, and staff went through 6 months of training with Movement Consulting last fall and winter involving monthly self-guided lessons and personal reflections, small group discussions, and large group discussions
- The next phase of the equity training involved a three-month capstone project this spring supported by biweekly consulting sessions from Movement. Six BSA participants elected to continue through the capstone project process. Two topics were selected for BSA-focused capstones:
 - **Topic 1:** Reviewing the BSA election process and suggesting improvements related to increasing transparency and equity (Brenda Molano Flores, Imeña Valdes, MinYa, Catrina Adams)
 - **Topic 2:** Developing an equitable, transparent process for authors to request and for editors to allocate waivers for article publication charges (APCs) or page charges for our journals (Applications in Plant Sciences, American Journal of Botany) (Briana Gross, Amy McPherson)

Summaries of the Capstone Projects from BSA and other participating societies are available on the ROOT&SHOOT website here: <https://rootandshoot.org/capstone-projects/>

Life Discovery: Doing Science Conference: We partner in hosting this education conference along with ESA and SSE. Typically a BSA staff member and/or a member of the education committee participate on the Life Discovery planning committee and BSA funds their travel to the conference (registration and sometimes hotel costs for planning committee members are covered by the conference). BSA also helps to advertise the conference to the BSA membership and helps to pick speakers that would appeal to BSA membership interests.

- **LDC 2023 was held March 23-25th at FAMU (Florida Agriculture and Mechanical University, an HBCU) in Tallahassee Florida. Theme: Variants in Biology Education: What can we learn from pandemics?**
- The conference may be taking a break for 2024 and reevaluating the model, getting difficult to raise funds each time and recruiting participants for a new place. The group is considering rotating between a few known locations to build more visibility in a location, especially for high school teachers as it is getting hard to recruit them. Grantwriting assistance will be needed for future conferences, a task that had fallen primarily on ESA.

Papers in press:

Westbrook, A., J. Taylor & C. Adams. “Digging Deeper into Student-Teacher-Scientist Partnerships for Improving Student Achievement and Attitudes about Scientists” was accepted by The American Biology Teacher and will be coming out in a few months.

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Nominated for award:

The PlantingScience Digging Deeper paper mentioned below was nominated for “Research worth Reading” award from NSTA/NARST, for education research papers the nomination committee felt had particular relevance to teachers. We were not ultimately awarded, but were honored to be nominated.

Taylor, J., Adams, C. T., Westbrook, A., Creasap-Gee, J. , Spybrook J. K., Kowalski S. M., Gardner, A.L. and M. Bloom (2022) The effect of participation in a student-scientist partnership-based online plant science mentoring community on high school students’ science achievement and attitudes about scientists. *Journal of Research in Science Teaching*. 59(3): 423-457. <https://doi.org/10.1002/tea.21733>

Presentations/Booth Recruitment Planned:

The PlantingScience booth at this year’s Botany conference will focus on mentor recruitment, with fun prizes for those who have mentored before, who sign up to mentor for this fall, or who recruit a new mentor. **Please stop by and help direct people to our booth during the coffee breaks and receptions.**

The PlantingScience team is also planning to attend the NABT conference, November 2-5, 2023 in Baltimore Maryland.