

## Education Update – February 2023

Prepared by Catrina Adams, BSA Education Director

### Bessey Award:

- **Education Director-at-Large Rachel Jabaily is calling for volunteers to serve on this year's [Bessey Award](#) ad-hoc Committee. We are looking for representatives from the Teaching Section, Education Committee (ideally including a student member), at least one representative from the DEI committee, and either president elect or past president.**
- The revised assisted nomination process and form worked well last year, and we plan to use this process again in 2023, with three 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).
- A call for Bessey nominations will open soon on the BSA website, with an April 1 deadline for new nominations.

### 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 vs. Pathable. 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 excited to be working with two new [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. The coordinators will be helping with the ongoing Spring 2023 PlantingScience session, and with the upcoming, much larger Fall 2023 session.
- Sarah Sims has left BSA for a new position as Manager of Continuing Education at Washington University in St. Louis's Brown School. Her last day was December 16, 2022.

### 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](https://www.nsf.gov/awardsearch/showAward?AWD_ID=2010556&HistoricalAwards=false)
  - We are currently recruiting teachers for the Y3 main experimental year of the F2 research project. We have recruited 97 teachers and randomly assigned them to participate in one of three groups this summer and fall: (group 1 (control), no PD/business as usual teacher; group 2, in-person PD/PlantingScience in fall; group 3, online PD/PlantingScience in fall).
  - The location of summer in-person workshops is currently TBD, as BSCS Science Learning is selling their Colorado Springs headquarters and moving to a smaller

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space. We are considering an alternative downtown Colorado Springs location (a library-affiliated space that can be booked free for non-profit use) and/or hosting one of two workshops at the Missouri Botanical Gardens. Rachel Jabaily is interested in being involved in the workshop in Colorado Springs and we'll keep her up-to-date as that schedule shapes up.

- We have secured IRB approval for our research plans, and have started the process of obtaining district approval for each participating district.
- We are piloting a revised assessment with students from three schools this spring.
- We have finalized a contract and workplan with the HubZero team (our platform providers) for a round of new development to make some anticipated improvements to user interface and to add new data tracking and mentor matching capabilities needed for Fall 2023. We are also adding a few new features to make it easier to use the PlantingScience platform to support online professional development for teachers and liaisons this summer. The work is ongoing, and we hope to be able to test certain features as they are rolled out this Spring.
- [PlantingScience F2 Fellows applications](#) are open through March 15: **please forward to early-career botanists you know who may be interested in this (stipended) professional learning and outreach opportunity.**
- Mentors are urgently needed for Fall 2023/Fall 2024 sessions to support the research participants. We will begin a large campaign to recruit mentors in mid-March. **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 will take 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):**
  - Catrina Adams, Chelsea Specht, and Brenda Molano-Flores are currently serving on the steering committee of the ASPB-led LEAPS RCN proposal [ROOT & SHOOT: Rooting Out Oppression Together & SHaring Our Outcomes Transparently](#). Chelsea is rotating off of the committee this spring, and Brenda is onboarding with some overlap will help ensure smooth leadership transition. Y2 activities included leadership training from [Movement Consulting](#), which 21 BSA-affiliated leaders participated in. This spring, six of the BSA-affiliated training participants are working in two society-based teams through the process of identifying and completing a “capstone project” for their society with advice and scaffolding from the Movement consulting team. The tentative topics selected involve election reform, and equity of how publication fee waivers are distributed.
  - The first ROOT & SHOOT working group is finalizing a series of recommendations that make up a shared “Inclusive Conferences” recommendations/action plan. There

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- were 25 members of the working group in total (10 BSA-affiliated) distributed among 5 subgroups: (Group A). Community agreement (formerly Code of Conduct); (Group B). Reporting structure - to hold people accountable for community agreement; (Group C) Conference site selection; (Group D). Improving conference accessibility; (Group E). Equitable programming and speaker selection.
- A separate group of 9 BSA members were recruited to provide feedback on the feasibility of draft recommendations from the Inclusive Conferences Working Group. A joint BSA-ASPT document review conference call was held in late January and [extensive comments](#) were passed along to the working group in early February.
  - ROOT&SHOOT is sponsoring two travel awards aimed to bring faculty/student pairs (at least one of whom belongs to SACNAS or MANRRS) to the Botany Conference. **The winners of this year’s travel awards for BOTANY will be Keily Peralta (mentee) and Ayress Grinage (mentor), and Betsabé D. Castro Escobar (mentee) and Jesús Martínez-Gómez (mentor). BSA has agreed to cover meeting registration for these pairs, while travel expenses will be covered by ROOT&SHOOT. We are also asked to recognize these awardees during our award slideshow and provide them with a contact who can welcome them to the conference and provide any logistics information and recommended activities they may need to fully participate.**
  - The R&S steering committee is still interested in doing a coordinated DEI self-assessment across the RCN participants. This is not a member survey; rather it is an *“evidence-based review of practices, policies, programs and traditions pertaining to membership-based activities and governance.”* **However, the group has decided to reevaluate the schedule for this effort, and delay the start until after the Movement Capstone projects are finalized in mid-April.** The AAAS Sea Change self-assessment has been suggested as a good model for this effort, although it may be more extensive than we have the capacity to fully implement: it is described [here](#), and resources including data template and guidelines can be downloaded [here](#). The R&S has roughly \$500 budgeted per society to support this effort.

**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](#) will be held March 23-25<sup>th</sup> at FAMU (Florida Agriculture and Mechanical University, an HBCU) in Tallahassee Florida. Theme: Variants in Biology Education: What can we learn from pandemics?**
- Jennifer Hartley and Phil Gibson are representing BSA on the planning committee for LDC 2023. Catrina also plans to attend and as Jennifer and Catrina will present a paper that includes information on the PlantingScience F2 project, the two of us plan to use F2 grant funds to cover our travel.

### Papers under review:

**Westbrook, A., J. Taylor & C. Adams.** “Digging Deeper into Student-Teacher-Scientist Partnerships for Improving Student Achievement and Attitudes about Scientists” was submitted to The American Biology Teacher on 10/21/2022 and is currently under review.

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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:**

**Jennifer Hartley is exploring ways to get PlantingScience-participating middle and high school students from the local area involved in the Botany 2023 conference in Boise, ID.** So far we have one teacher (Dan VandenHeuvel from Wood River High School) who is planning to attend with some of his PlantingScience students who participated in the Spring 2023 session. The students are currently working on projects associated with the “Plants Get Sick, Too” Investigation Theme. We are hoping to have a small poster display and event at the PlantingScience booth to showcase student work.

The PlantingScience team is tentatively planning to attend the NABT conference, November 2-5, 2023 in Baltimore Maryland. We may share booth space with some of our partner organizations who are also planning to attend (APS, ASPB). We are also considering attending the NSTA meeting to be held in Kansas City, MO (Oct. 25-28) due to its proximity to BSA headquarters. We are also looking for possibilities for sharing a booth for that conference to reduce expenses.