

Education Report – February 2020

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PlantingScience Update

Funding status

- AT THIS POINT grant funding for PlantingScience for next year is uncertain
- We are in our no-cost extension year of Digging Deeper (DIG) grant (through September 30, 2020).
- NSF DRK-12 grant proposal pending: PlantingScience F2: The Next Generation of Collaborative Teacher-Scientist Professional Development (C. Adams PI, \$4.6M).

Program impact

- PlantingScience/K12 support ranked #1 priority for education and outreach in a recent member survey
- Active since 2005, PlantingScience has reached approximately 27,000 students, 300 teachers, and 400 early career scientists serving as liaisons between teachers and scientist mentors

Recent quotes from participating teachers

- *“The conversations had a positive impact. Overall my students are more interested in plants and Biology. That in itself is a milestone. As well, they can see the possibilities for a future that is bigger than they may have imagined. If one student goes on to pursue a career in plant science it will be because of this experience.”* - New teacher
- *“On a personal note, this experience has changed the way that I teach this topic and made me rethink my approach on others. I feel as though I am becoming a better teacher. The teacher materials are excellent.”* – New teacher

Collaborations/Infrastructure

- HUBZero online platform development supported by NSF – open source software
- 10 modules developed by BSA and partner organizations including “Agronomy Feeds the World” from the American Society of Agronomy and “Plants Get Sick, Too!” from the American Phytopathological Society
- 18 partner organizations
- 5 societies have supported early-career scientist liaisons in the past, APS is considering supporting this as well

Current program research

- PlantingScience Power of Sunlight program is effective at improving both student achievement and attitudes about scientists compared to business-as-usual methods of teaching the same material. (Taylor et al., review of revisions underway by Journal of Research on Educational Effectiveness)

Presentations Given/Workshops Attended Since last update:

Plant Health (J. Creasap Gee, August 2019); Plant Biology (C. Adams, August 2019); National Association of Biology Teachers (C. Adams, J. Creasap Gee November 2019)

Future Presentations: Accepted to present at American Society of Association Executives on “What would a high school student say about your industry?” (C. Adams, H. Cacanindin presenting)

New Opportunities for BSA Education

Strategic Planning

We are very much looking forward to strategic planning and exploring how education can best serve BSA’s mission in the next few years. As we prepare for strategic planning, we are taking a closer look at current education landscape, what other organizations are doing, literature around best practices for education programs, how best to support diversity and inclusion through education initiatives, and surveying our membership to see where they perceive the greatest needs.

Top 3 priorities for BSA education/outreach according to recent membership survey include:

1. Supporting K-12 teachers and students (e.g. PlantingScience online mentoring program)
2. Providing educational resources on the botany.org website
3. Providing resources on careers in botany/plant sciences

Pursuing collaborative agreement with US Botanic Garden RE new “Careers for Plant People” resource: Terrific new opportunities for funding education program initiatives in collaboration with the US Botanic Garden. Can assist with development of CiviCRM (our membership database) profiles and member gallery in a way that would support feature-rich community building and flexible, user-friendly profile pages. The agreement can be used going forward to support related projects. Idea is to be a broad, general resource less discipline-specific than alternatives. Will be an excellent opportunity to expand outreach resources for our new website.

Researching models for a BSA mentoring program: Requested by member survey, requested by PUI section. Generally research suggests the traditional dyad mentoring model may not be most useful/does not tend to support underrepresented minorities well. Better is a “networked” or “mosaic” model that connects people for specific purposes and helps mentees identify what they are looking for and who is most likely to be able to provide that. We have held two conference calls with the PUI section leadership and BSA staff to begin laying the groundwork.

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