STUDENT GRANTS

We love seeing graduate student grants increase over time! Total investment in student grants has increased significantly over time, which we believe maintains high student engagement with the organization and fosters a commitment to BSA long-term. We understand that some of the funding we offer is dependent on fundraising, and we hope BSA will continue to support these high funding levels in the

<table>
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<tr>
<th>Award</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<td>$51,500</td>
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long-term.
STUDENT MEMBERSHIP
In 2022, BSA had the second highest number of Student Members (948), after a record 2021 (989). Student members continue to make up 31% of total membership, staying at the record high from 2021. The student percent of total memberships decreased by 4%, in line with the total membership decrease. 64% of students had General membership, 33% had a 3 year membership, and 3% had a Chapter membership.

These trends continue to reflect the high student engagement in the society and highlight the importance of the student population for the society, both for student membership and for conversions from student to other membership types.

We hope to continue to increase student membership from BSA Student Chapters. One of the new requirements for the chapters is that the two primary officers are current BSA members. We were expecting this change will increase student membership from the 15 student chapter memberships in 2021. At this point in the implementation of the new requirements, we have had an increase to 24 chapter members.

In the last year, we have taken many steps to create opportunities for students to continue to engage them in the society and maintain membership:
- We continued to compile student resources in a Google Doc and actively interacted with student members via social media.
• The Early Career Professional Development Committee proposed by past Student Reps has been active and working on professional development events for our members.
  o They have fully taken over the GRFP workshop, and held an “Applying to Graduate School” both offered in Fall 2022
  o The committee is planning an Natural History Careers Panel for Spring 2023
  o Planning to have booth presence at the Conference with different themed hours: types of careers, etc
• The new committee application process took effect in the 2022 application season, but we had few student applicants for the positions. This year, we heavily advertised these positions to students through social media and the student newsletter.

BOTANY 2022 RECAP
Summary
After a large increase in 2021, the Botany 2022 conference student attendance decreased closer to pre pandemic numbers, with 533 registered students. Students made up 42% of the total conference attendees, a percentage which has stayed consistent since 2019. The total number of students attending has decreased 35% compared to the 2021 conference, about the same percentage as the total attendees. We believe that the virtual conference option had a large positive impact on that temporary increase in student attendance. Conference travel costs are often prohibitive for student attendance and the virtual option allows students to participate at just the price of registration.

General:
• 533 student attendees
  o 362 (68%) were graduate students
  o 171 (32%) were undergraduates.
• The percentage of graduate/undergraduate students attending the conference has stayed fairly consistent from 2020.
Hybrid conference:
- 46% of virtual attendees were students (165/362)
- All 65 student respondents to the conference survey attended in person, yet 77% of them wanted to continue the hybrid model, citing accessibility and recorded talks as reasons for liking virtual access.
- Some things they would like improved in the virtual conference is uploading presentations early, lack of engagement on the virtual side and technical difficulties.
- For 2024, 91% of respondents would prefer either a hybrid or virtual conference

Presentations:
- 41% (426) of abstracts were student submissions
- 77% presentation rate per student attendees (compared to 56% in 2022) suggesting that students who attend are very likely to present. This may be due to the location and cost of travel to Alaska.
- 33% (223) of total paper presentations were from students. The numbers were consistent with 2021 at 35% (231) presentations.
- Students presented 55% (152) of total posters, compared to 62% (213) 2021 and 77%(155) in 2020, which were both virtual conferences.
- 29% of total lightning talks versus 15% in 2021.
Key takeaways:

- Students continue to make up a huge percentage of conference attendees averaging at 41% of total attendees over the last five years. This means we must understand their conference needs to continue to serve this population and maintain their engagement in the conference.

- Students presented at a high rate (77% of student attendees), which is in line with the total conference presentation rate (82%). These percentages are much higher than during the virtual conference years (58% and 55% general rate). We didn't have access to student presentation metrics from in person years, but this may indicate that students or other members who are not able to present have a lower barrier to entry with virtual conferences. This may be an incentive to organize virtual only conferences in the future. Students who may not otherwise be exposed to the conference would be much more likely to attend.

- According to the conference survey, a large majority of students would like to continue virtual or hybrid conference options

- **We attribute the huge jump in conference registration and presentations for 2021 to the accessibility of the virtual conference and hope that BSA continues to offer this in the future to be able to reach out to more underserved botany students and to meet our strategic plan goals**

- It is still difficult to point to long term patterns using the data, since this was the first hybrid and first in person in a few years.

Evaluating proposal to increase student participation in symposia and colloquia

In Spring 2021, the student reps recommended to the board that “starting with Botany 2022 we require all symposia and colloquia to include at least 1 student in their proposal to be approved and continue to encourage organizers to take into account the diversity, including the career stage diversity, of their speakers”. There wasn’t strong support from conference participating societies for mandating that at least one student be included as a speaker in the symposia and colloquia proposals. The language change included in the 2021 call for proposals:

“Please note that when preparing proposals, organizers are expected to consider gender, seniority, nationality, and all other axes of diversity traditionally underrepresented in conference symposia and to describe their efforts in the proposal. We seriously consider the diversity of participants as a criterion for symposium funding. […] We also welcome proposals that include outstanding student and PostDoc speakers.”

To evaluate whether the application language change had an effect on inclusion of students in the colloquia and symposia, we pulled information from the Botany 2022 selected sessions applications. The applications had varied information about the career stage or position of the proposed speakers, but we were able to identify student
speakers and post-docs in 50% proposed sessions in 2022 and 81% proposed sessions for 2023. Out of the 75 speakers proposed for 2023, 14 were students and 11 were post-docs. The symposia/colloquia student participation seemed to decrease during the virtual conferences but increase again for 2023 (23% of invited speakers in 2020, 15% in 2021, 12% in 2022, expected 19% in 2023). The higher student inclusion was driven by increased colloquia speaker invitations. So far, this data does not appear to support that the language change has had an effect on student invitations to colloquia/symposia, although overall it seems that more proposals are including at least one student speaker, with a third of them including multiple student speakers in 2023. We believe that it is important to continue to monitor student participation in colloquia/symposia and find ways to increase participation, as students make up 42% of conference attendees and 41% of overall presentations.

<table>
<thead>
<tr>
<th>Year</th>
<th># Students</th>
<th># Post-Docs</th>
<th>Total Speakers</th>
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<td>Colloquia</td>
<td>8</td>
<td>12</td>
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<tr>
<td></td>
<td>Sympoisa</td>
<td>7</td>
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<tr>
<td></td>
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<td>15</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
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<td>9%</td>
</tr>
<tr>
<td>2023</td>
<td>Colloquia</td>
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</tr>
<tr>
<td></td>
<td>Symposia</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
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<td>11</td>
</tr>
<tr>
<td></td>
<td>% of speakers</td>
<td>19%</td>
<td>15%</td>
</tr>
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</table>

**Event Recap**

**Career in Botany Luncheon:**
We held a musical chair like event where a record 20 panelists rotated around the room and chatted with the 83 attendees about their career experience. This diverse set of panelists exposed the participants to many different career options and the luncheon received positive feedback from students and panelists. Profiles were added to Botany.org.
**Planting the Seeds of Science Communication workshop:**
We had a great turnout for the *Planting the Seeds of Science Communication* workshop. 10 panelists and 20 students attended. The workshop panelists were a diverse group of plant science communicators who reach people through various platforms including community outreach, museums and botanical gardens, social media, video, and writing.

**Student Social and Networking Event:**
We had 175 students who attended the social (56 more than 2021). We had lots of positive feedback and we think these events were overall successful.

**CV Review Sessions:**
We had 9 reviewers and 18 student participants. For Botany 2023, these sessions will be integrated into our student workshop.
Botany 2022 Networking Board: We had 32 entries for ‘ECR Looking For’ and 12 entries for ‘Open Positions’.

@imenav

It’s official: the #Botany2022 virtual networking board is live!

4:02 PM · Mar 13, 2022

15 Retweets 3 Quote Tweets 28 Likes

Student Chapter Meet-up:
We had two student chapter members come and chat about their chapter’s activities. We hope to expand this event at Botany 2023 with more advertising and engagement.

BSA Officer Mixer:
We unfortunately did not have anyone attend this event in 2022. Perhaps it will be better to integrate it in booth activities in 2023.
LOOKING FORWARD - BOTANY 2023

Conference events
- Workshop - Writing your CV and translating it into public facing website
- Careers in Botany Luncheon
- Student Social
- BSA Student Chapter Meet-up

Networking
- Botany 2023 Networking Board - in progress

OTHER CONTRIBUTIONS

Plant Science Bulletin

Summer 2022
- Advertised conference events in “Getting Ready for Botany 2022”
- New BSA student representative was highlighted

Fall 2022
- Recapped events from Botany 2022
- We asked participants of the Career in Botany Luncheon to share advice
  - 5 Professionals shared their advice
  - 2 Students shared what they learned
- Shared 5 new articles in the Papers to Read for Future Leaders section

Spring 2023
- We compiled more than 70 grants/internships/workshops historically in the Spring PSB with the intention to have these actively available and updated on the Botany website

Summer 2023
- In progress

Committee applications
We had 6 open positions for student representatives on BSA Committees. We do not yet have the data for how many applications we received from students. We advertised in the student newsletter and on Twitter.

We also advertised for the BSA Student Rep position.
Botany360
We recently hosted the “How to be Successful BSA Student Rep” for 2023-2025 candidates to explain what the position entails and to help applicants understand the commitment. We had two attendees, one of which seemed very interested in the position.
We are also planning a “Preparing for Botany” Botany 360 event to help students, especially those who have not yet attended a conference, plan for Botany 2023. Tentative on event dates, but planning for late May.

Connecting with Student Members
We continue to update the BSA Student Resources Google Doc.

Other activities and committee participation
- Awards and Ethics Ad-hoc Committee - Helped develop recommendations and documentation for the society to use when choosing award recipients and invited speakers.
- **Review of Inclusive Conference Working Group (ICWG) Recommendations meeting** - Provided ideas for implementation of recommendations in the short and long term

- **Botany 2023 Planning** - Attended and provided input in conference planning meetings; Eli traveled to Boise for site visit and planning discussions