

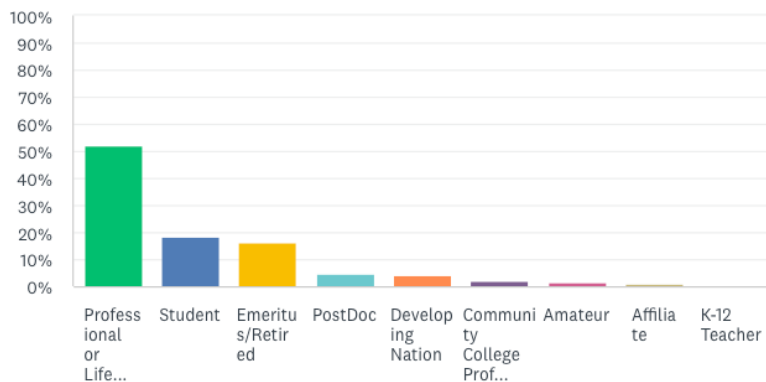
BSA 2023 / 2020 Survey Results and Comparison

2023

325 Participated – 12.6% of BSA Membership

92% satisfied, with 69% very satisfied

BSA Membership Category

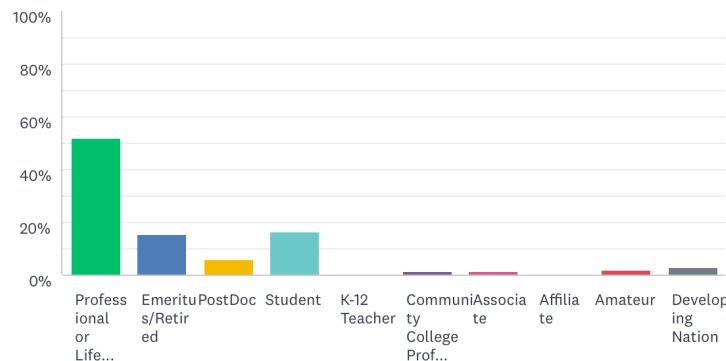


2020

406 Participated – 13.4% of BSA Membership

88% satisfied, with 67% very satisfied

BSA Membership Category



Comparison

2023 had a less than 1% decline in participation

Satisfaction has grown slightly higher in 2023

BSA Membership Category

The breakdown is very similar between both years, with the largest being Professional (averaging 52%) followed by Students (17.5%) followed by Emeritus/Retired members (15.8%).

Membership Lifetime

1-2 years =	16.8%
3-5 years =	14.0%
6-10 years =	12.5%
11-20 years =	17.1%
More than 20 years =	39.6%

Membership Lifetime

1-2 years =	15.6%
3-5 years =	14.1%
6-10 years =	12.1%
11-20 years =	19.0%
More than 20 years =	39.3%

Membership Lifetime

The majority of those who answered the survey were long-term members with a very slight increase in newer members taking the survey. About 70% who answered have been members for at least 6 years.

Current Position (Not Membership Category)

Top 6

Tenured Faculty	28.5%
Emeritus/Retired	19.2%
Graduate Student	14.2%
Tenure-Track Faculty	8.7%
Botanical Garden or Museum Employee	5.8% - NEW
PostDoc	5.6%

Current Position (Not Membership Category)

Top 6

Tenured Faculty	29.7%
Emeritus/Retired	17.3%
Graduate Student	13.7%
Tenure-Track Faculty	8.9%
PostDoc	6.9%
Government Position	4.6%

Current Position

The top 6 current positions show once again that the survey was taken by those who have had long-term investment in their career in botany and a commitment to BSA. There was very little change between the two years.

2023

Is “Open Access” Important to You?

Yes	60.8%
No	11.4%
Neutral	27.9%

2020

Is “Open Access” Important to You?

Yes	53.1%
No	13.5%
Neutral	33.4%

Comparison

Is “Open Access” Important to You?

The trend toward “Open Access” importance has grown between the years no doubt due to the continued global focus, and changes, regarding OA.

What sources do you use to pay publication and open access fees? (Checked all that applied)

	2023	2020
Institutional agreement with the journal publisher	20.3%	N/A
Institutional or departmental funds	34.2%	41.6%
Institutional or departmental library funds	9.3%	6.0%
I pay out of my own pocket	28.5%	32.4%
Grants (fees are built into the grant)	0.0%	30.8%
OA is mandated by my funder, so Article Processing Charges are built into my grant	12.5%	1.6%
I have a mentor, sponsor, or anonymous person that supports paying these fees	11.4%	N/A
I don’t publish in journals that require publication fees	16.4%	17.8%
I don’t have funds to pay for Open Access	32.0%	21.1%
I don’t pay for open access	N/A	17.0%
Other	7.8%	3.0%

Sources for paying for open access

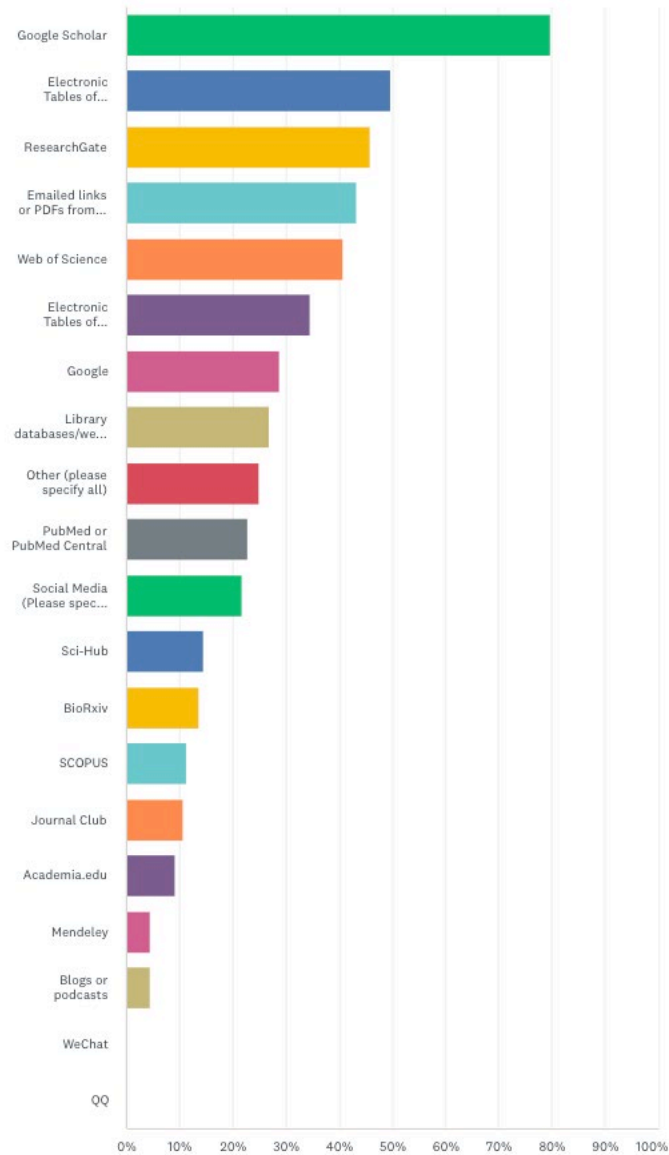
The highest percentage of respondents use either institutional/departmental funds or their own money to publish in Open Access publications. A little over 20% take advantage of institutional agreements with the journal publisher, which were not widely available in 2020 but have been expanding since. Over 30% of respondents do not have funds available to them to pay for Open Access.

Comments

Comments to this question include the following themes: cannot afford OA, limited institutional funds, no longer publishing regularly (retired etc.), have not published yet (need direction/funds), grant funds, grant has expired, government employee and fees are not an option, pay out of pocket for their students if need it to graduate, have received waivers.

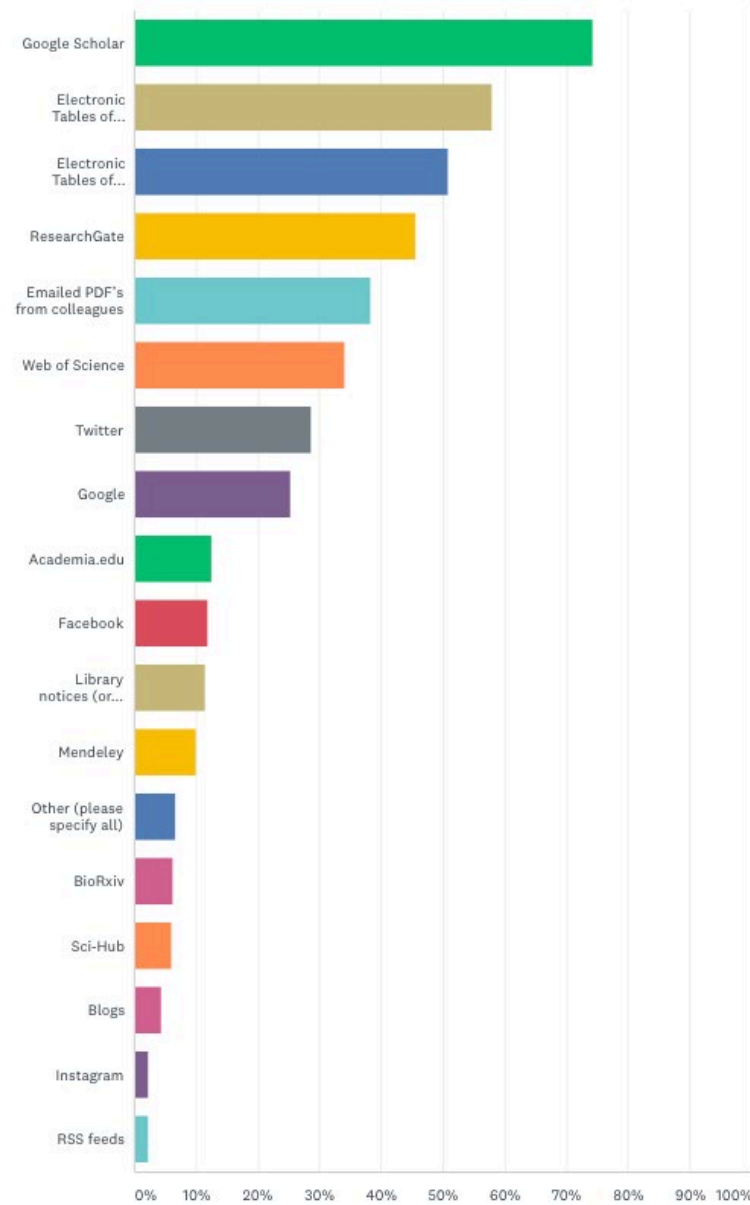
2023

How do you find information about articles of interest?



2020

How do you find information about articles of interest?



Comparison

How do you find information about articles of interest?

This year, Google Scholar, internal Electronic Table of Contents (eTocs) by societies, and ResearchGate were once again the top ways people found information about articles of interest. Publishers' eTocs dropped from 3rd to 6th place.

This year, social media outlets were combined into one category which may have affected their position in the results. Of those who choose "Other" Twitter was by far mentioned the most.

Members checked all choices that apply when asked this question.

2023

What were your top three reasons for originally joining the Botanical Society of America?

To participate or present at the annual conference	60.8%
To join a community of my peers/networking	59.8%
To receive access/subscription to the AJB	40.6%
To publish in the American Journal of Botany	38.7%
Professor/colleague recommendation or gift membership	31.3%
To receive the annual conference registration discount	23.2%
To participate in the Society's awards program	11.5%
To participate in professional development /Botany360 webinars	8.1% - NEW
To receive reduced OA fees when publishing in the AJB or APPS	7.1%
To participate in the Society's educational outreach efforts	5.6%
To publish in Applications in Plant Sciences	5.3%
To participate in the Society's DEI outreach efforts (PLANTS, etc.)	4.6% - NEW

2020

What were your top three reasons for originally joining the Botanical Society of America?

To participate or present at the annual conference.	48.9%
To join a community of my peers/networking	42.6%
To publish in the American Journal of Botany	38.2%
To receive access/subscription to the American Journal of Botany	36.2%
Professor/colleague recommendation or gift membership	22.7%
To receive the annual conference registration discount	11.2%
To participate in the Society's awards program	9.7%
To participate in the Society's educational outreach efforts	5.0%
To receive reduced OA fees when publishing in the AJB or APPS	4.5%
To publish in the Applications in Plant Sciences	3.2%

Comparison

What were your top three reasons for originally joining the Botanical Society of America?

The annual conference and being part of a community/networking continue to be the top two reasons to join the Society and are, in fact, growing.

The last survey was taken right before COVID closures, combined with very successful virtual and then hybrid conferences, as well as the beginning of the Botany360 program, more people are looking for, and finding at BSA, a chance to be part of a community.

AJB benefits remained very important when joining the Society. Overall, the two years mirrored each other well with the exception of OA fees and educational outreach efforts switching places.

2023

Why do you continue to maintain your BSA membership?

To be a part of a community of my peers/networking	80.4%
To participate or present at the annual conference.	58.0%
To receive access/subscription to the American Journal of Botany	40.1%
To publish in the American Journal of Botany	37.5%
To receive the annual conference registration discount	21.8%
To participate in professional development such as Botany360	13.3% - NEW
To receive reduced OA fees when publishing in the AJB and/or APPS	12.3%
To participate in the Society's awards program	11.4%
To participate in the Society's educational outreach efforts	9.5%
To publish in Applications in Plant Sciences	7.9%
To participate in the Society's diversity and equity outreach efforts	5.7% - NEW

2020

Why do you continue to maintain your BSA membership?

To be a part of a community of my peers/networking	70.8%
To participate or present at the annual conference.	49.5%
To receive access/subscription to the American Journal of Botany	42.1%
To publish in the American Journal of Botany	39.1%
To receive the annual conference registration discount	18.3%
Other (please specify)	10.9%
To receive reduced OA fees when publishing in the AJB and/or APPS	10.4%
To participate in the Society's educational outreach efforts	9.7%
To publish in the Applications in Plant Sciences	8.9%
To participate in the Society's awards program	7.9%

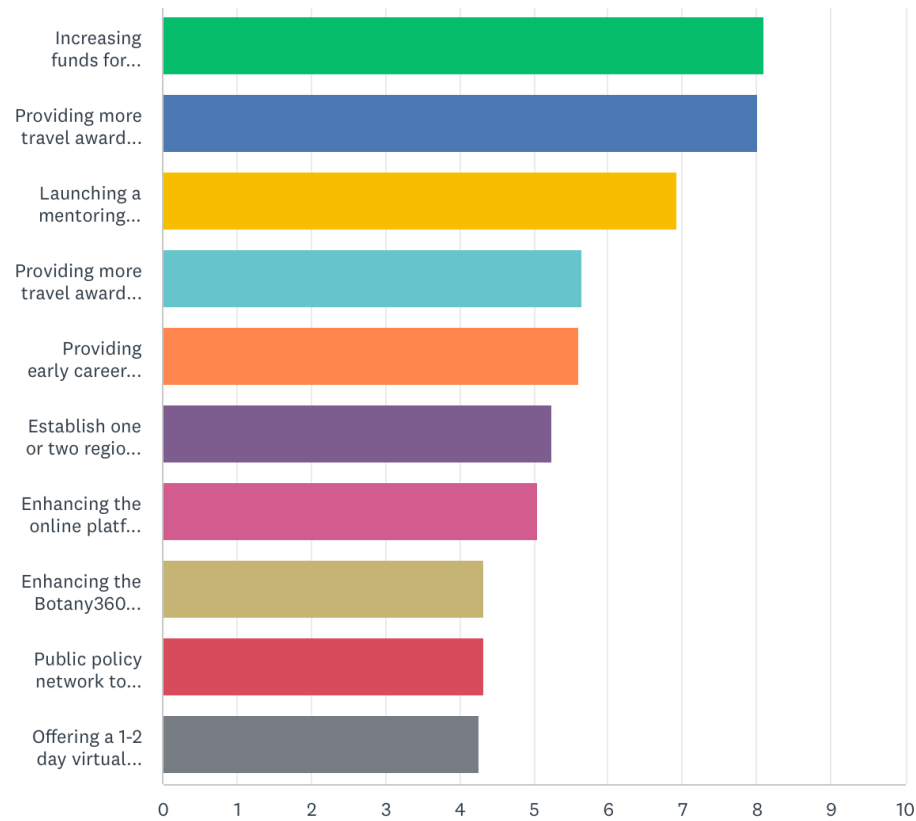
Why do you continue to maintain your BSA membership?

Both years show that community and networking are by far the most important part of why people stay at BSA. It is not surprising that it has grown after the experience of COVID and social distancing.

Everything else is a mirror of the year before when looking at order of importance except for the awards program, which went from last to 4th from last.

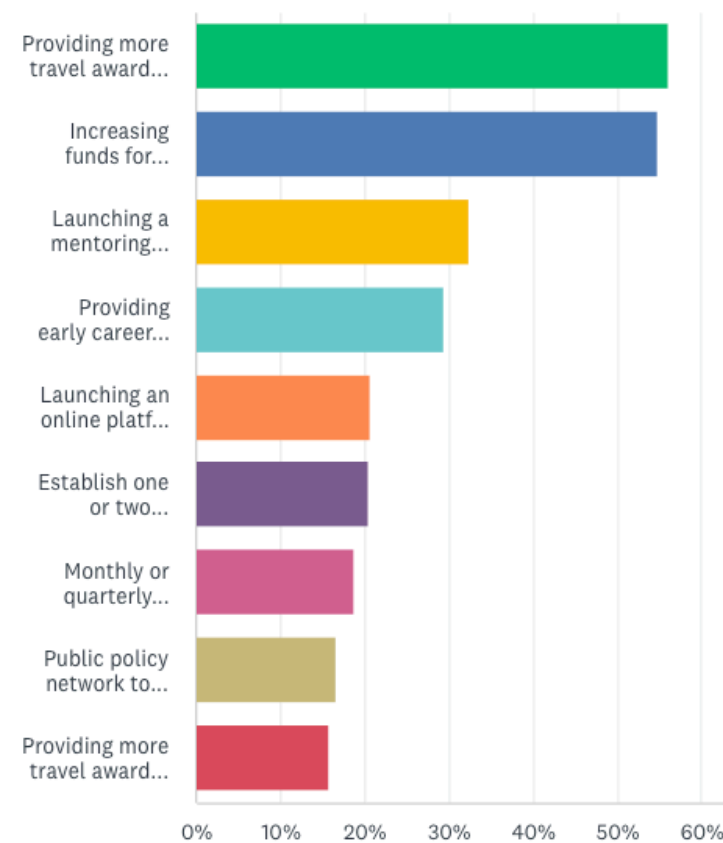
2023

If BSA could invest funds in an additional or enhanced member benefit, which option would make the biggest impact? (Ranked Order)



2020

If BSA could invest funds in an additional or enhanced member benefit, which option would make the biggest impact?



Comparison

If BSA could invest funds in an additional or enhanced member benefit, which option would make the biggest impact?

Please note that this year the question was done via Ranked Choice which may skew the comparison between the years.

The top two results in both years by far were Increasing funds for graduate student research awards (more awards and larger amounts) and providing more travel awards to Botany Conference for Students/PostDocs. You will notice that they flipped for top place but were incredibly close.

Things of note include the “Providing more travel awards to Botany Conference for Professional members” went from last place to 5th place. And the new option, “Offering a 1–2-day virtual conference outside of the time frame of the annual meeting” was last.

This section shows questions that were asked in the 2023 survey but were not asked in the 2020 survey.

How often do you use these social media platforms?

This question really has two purposes. One is to gauge which platforms people use and the other is to see which ones they use for professional purposes.

Top platforms for:

- *Daily personal and professional use:* WhatsApp, Facebook, Twitter
- *Daily professional use:* Twitter, LinkedIn
- *Daily Personal use:* Instagram, WhatsApp, Facebook
- *Occasional personal and professional use:* Twitter, WhatsApp, Facebook
- *Occasional professional use:* LinkedIn, Twitter
- *Occasional personal use:* Facebook, WhatsApp, Instagram
- *Rarely use account:* LinkedIn, Facebook, Twitter
- *Do not use account/no account:* Mastodon, TikTok



BSA currently uses Twitter, Facebook, and Instagram for our social media. Looking at the results from this survey, Twitter is certainly still an asset to the BSA members (see below for more on Twitter). Surprisingly, WhatsApp, which is very popular globally, is also very popular with our members and might be worth investigating as a new avenue for the Society to do outreach and support members. Utilizing LinkedIn could also be something to explore, though the data was not nearly as strong as it was for WhatsApp. Overall, this report shows that people are interested in engaging in at least 2 of the 3 platforms that we use.

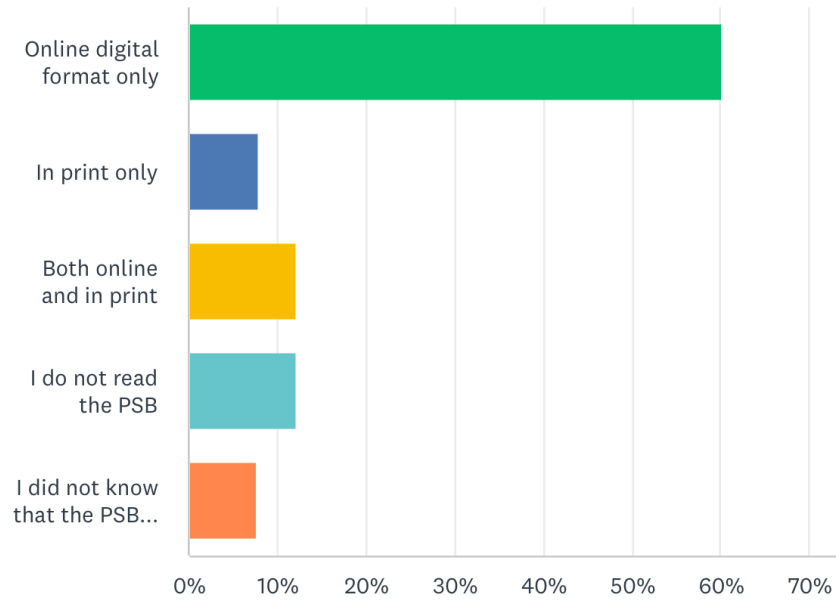
How do you feel about the use of Twitter as a community-building tool for BSA given the changes that have happened there in the last 12 months.

(BSA's Twitter platform has 20,000 followers at this time)

ANSWER CHOICES	RESPONSES
I do not have a strong opinion on whether BSA should continue to use Twitter	36.62% 115
I am waiting to see what happens in the future, but for now I am fine with BSA using Twitter	20.38% 64
I support BSA keeping Twitter as an important community-building tool for the community	20.06% 63
I feel strongly that BSA should not use Twitter going forward	15.92% 50
Other (please specify) Responses	7.01% 22
TOTAL	314

The majority of those surveyed do not have a strong opinion as to whether BSA should stop using Twitter or are waiting to see what happens. This could easily shift as Twitter goes through changes that may or may not align with the mission of BSA. At this time, the survey results show that the majority of those surveyed believe no steps need to be taken to stop using Twitter at this time.

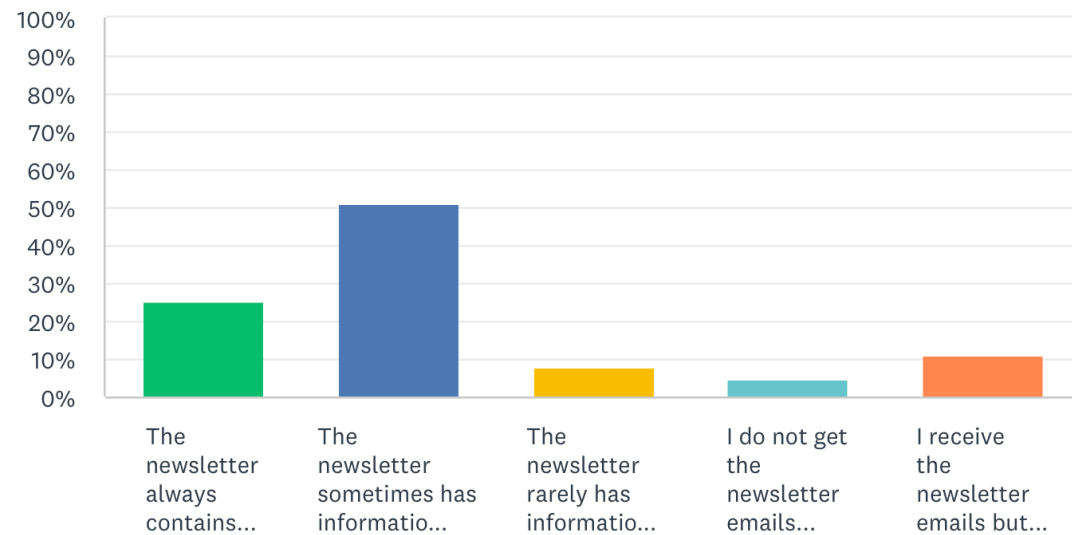
When asked where we should migrate if no longer on Twitter there was not really a consensus on where that would be.



The *Plant Science Bulletin* is a benefit of your BSA membership. Do you read it online or in print?

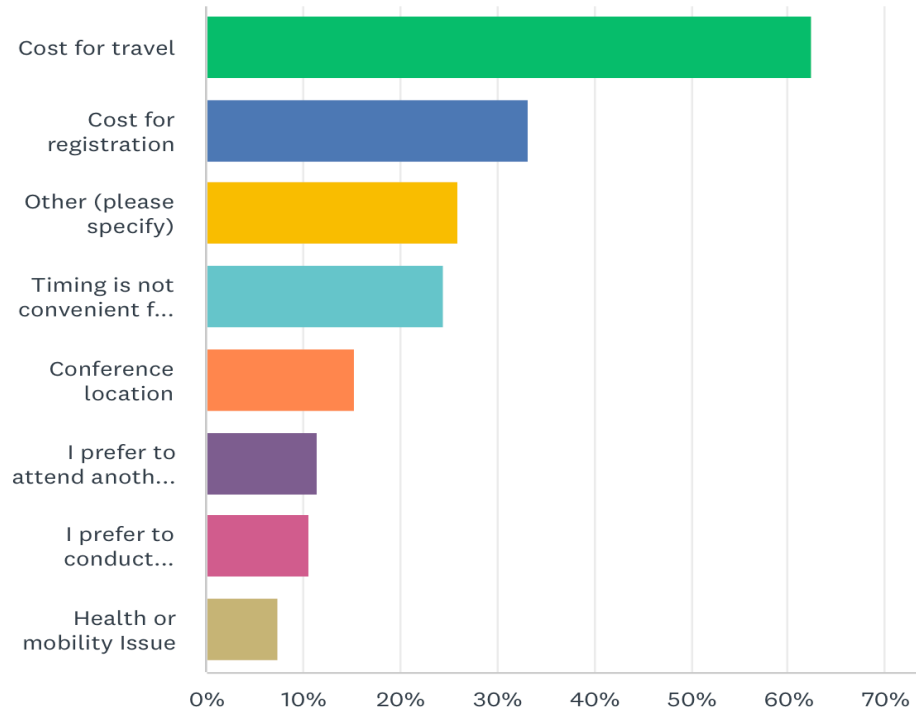


This survey question shows that over 80% of BSA members read the *PSB*, which shows its value to BSA's members. This year, efforts were put in place to try to lower the amount of print copies that were made to save resources. At this time about 20% of members surveyed utilize the print option to some degree. We are hoping to lower that amount in years to come.



Please rate the content of the BSA monthly Membership Matters newsletter

Over 76% of those surveyed found the newsletter to sometimes or always have information that is relevant to them. Several comments were made with ideas of new content including: Reports from student chapters, updates on Roots and Shoots, and death notices/obits. The Memberships Matters newsletter continues to be a good source of community news.



If you do not attend the Botany Conferences – why not

The overwhelming response to this question is cost and by far it is the travel cost, followed by the cost of registration. Timing and locations also are a factor.

Comments

Comments to this question include the following themes: inability to afford the conference, COVID concerns, not presenting research at this time, time restrictions, issues with visas, location politics, not their “main” conference/Society or chose a different conference, childcare.

Comments about what changes you would like to see in the future

Comments to this question include the following themes: more and better vegan food options, meet at universities, more networking, lower housing costs, have a trivia night, full access to all presentations online, DEI workshops and spaces, choose virtual or in-person but not hybrid, do a better hybrid, less overlapping symposia, choose location more carefully – politics, increased volunteer training, early career participant emphasis, cooler locations (temp), printed program.



Which of the following describes your interactions with our K-12 online mentoring program, PlantingScience? (Selected All that Apply)



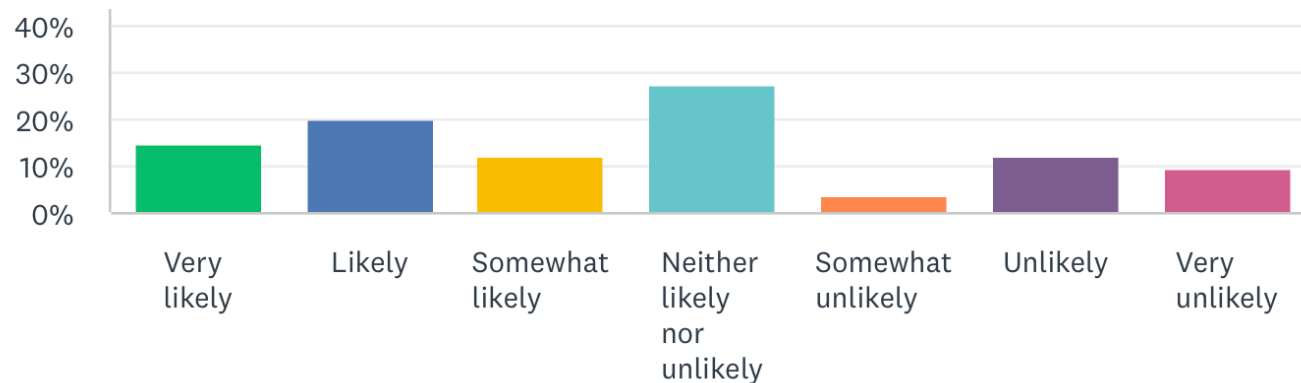
- 50.00% I know I have never interacted with PlantingScience
- 11.19% I have never heard of PlantingScience
- 12.59% I am not sure if I have interacted with PlantingScience

- 15.73% I have participated as a mentor
- 13.29% I have recommended PlantingScience to a colleague
- 5.94% I have signed up for PlantingScience but have not yet participated
- 4.90% I have donated to PlantingScience
- 3.15% I have participated as a Master Plant Science Team/Liaison
- 2.80% I have promoted PlantingScience at an event (participated in a panel or presentation, wore a ribbon or t-shirt, volunteered at a booth, distributed flyers or posters)
- 2.45% I have participated in a PlantingScience in-person event (workshop, discussion session, focus group, reception)
- 1.05% I have participated in developing or testing PlantingScience materials
- 0.70% I have participated as a PlantingScience coordinator/intern
- 0.35% I have participated as a teacher
- 0.35% I was a part of the 2016-2017 Digging Deeper research study

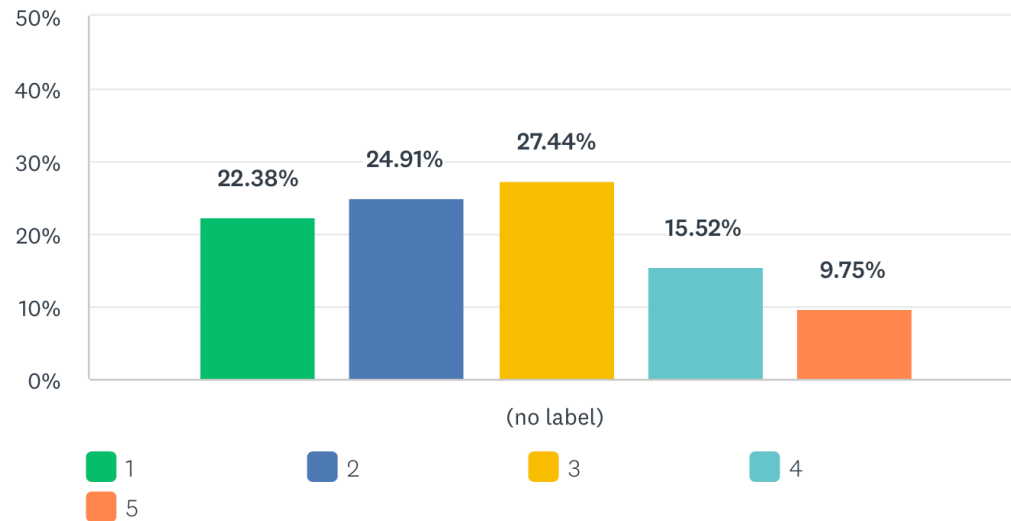
Of those surveyed, over half of the responses stated that they had not participated in the program or were not sure if they had. Those that did respond that they knew about the program and/or were involved, covered a wide spectrum from donating to the program to participating on a wide variety of measures (mentor, coordinator, teacher). Only 11% did not know about the program. This shows that BSA does a good job of promoting PlantingScience to the membership and should continue providing information and updates to members.

How likely are you to recommend mentoring through PlantingScience to your colleagues and/or students?

It is not surprising that these results are across the board and that there is a large bump in the neither likely nor unlikely option because less than half of the members who took the survey knew and/or participated in the program. **Comments** regarding this question have the themes: Didn't know about the program but will now recommend, no longer have students, I need to learn more about the program first, retired.



How well represented do you feel by BSA leadership current/past? Please rank on a scale of 1 to 5, with 1 being very well represented and 5 being not well represented.



57.3% of respondents felt they were very well or reasonably well represented by the BSA leadership current/past. The largest group of respondents choose option 3, which suggests that people do not feel particularly strongly one way or another. And just over a Quarter felt that they were not well represented.

Comments

Comment themes include: Keep in mind the increasing diversity of the student population, BSA leadership is overwhelmingly white, haven't really paid attention to who was in leadership positions, men must be asked to do more in the Society, women are doing too much of the work, non-academic scientists are close to invisible, I don't know who the leadership is, I vote but don't feel represented, BSA is listening to student members more, it would be great to have a place to learn about our leaders, some types of botany are not represented, not a high representation of BIPOC and Latinx

What changes would you like to see in BSA leadership in the future?

Answers include the following:

- I like that BSA uses the group collectively to advance our mission through politics.
- I would like to feel that there is a truly open selection of candidates / More transparency about who gets elected
- Focus both on academics and teaching - we are a diverse lot at a large array of colleges.
- More small school representation.
- One day it would be awesome to see an Indigenous person at the helm of an organization like this because it would show the shift we are all in and how the people existed before European contact (that we knew exactly what we were doing and continue to do so).
- BSA has seemed to be weak on endangered species and conservation issues. Being a government scientist working on these issues, I see there is more BSA could do here.
- It is difficult for people in the early career stage to serve in society leadership roles, but it would be great to have more early career scientists from diverse backgrounds in leadership
- Regional/thematic leaders for distinct communities.
- I strongly believe that the Nominations Committee should continue to nominate candidates and not solely rely on self-nominations. There should be two candidates for every office even if there are incumbents.
- Engage prominent botanists more directly. Raise the profile of the BSA.
- More involvement with members interested in non-botanical areas of research (fungi, microbiology etc.)
- Two other themes include increasing the diversity (specifically BIPOC and Latinx) and increasing the student leadership opportunities.

What do you look for/want to know when evaluating candidates for BSA's Board of Directors? (Ranked Choice)

The top three ranked choices were:

- Commitment to society (number of years being a BSA member; whether or not have served on a BSA leadership role previously, whether regularly attend the meetings)
- Vision for the future of the BSA
- Diversity (outside/unique perspective and/or experience, different from current/past leaders)

The rest of the order was:

- Discipline in the Plant Sciences
- Career Stage
- Personality/Character
- Prestige/Name Recognition
- Personal Connection (do I know them personally or through my networks)

The above survey results show similar trends to the previous leadership sections. People want a forward thinking, diverse leadership who have a long-term commitment to the Society.

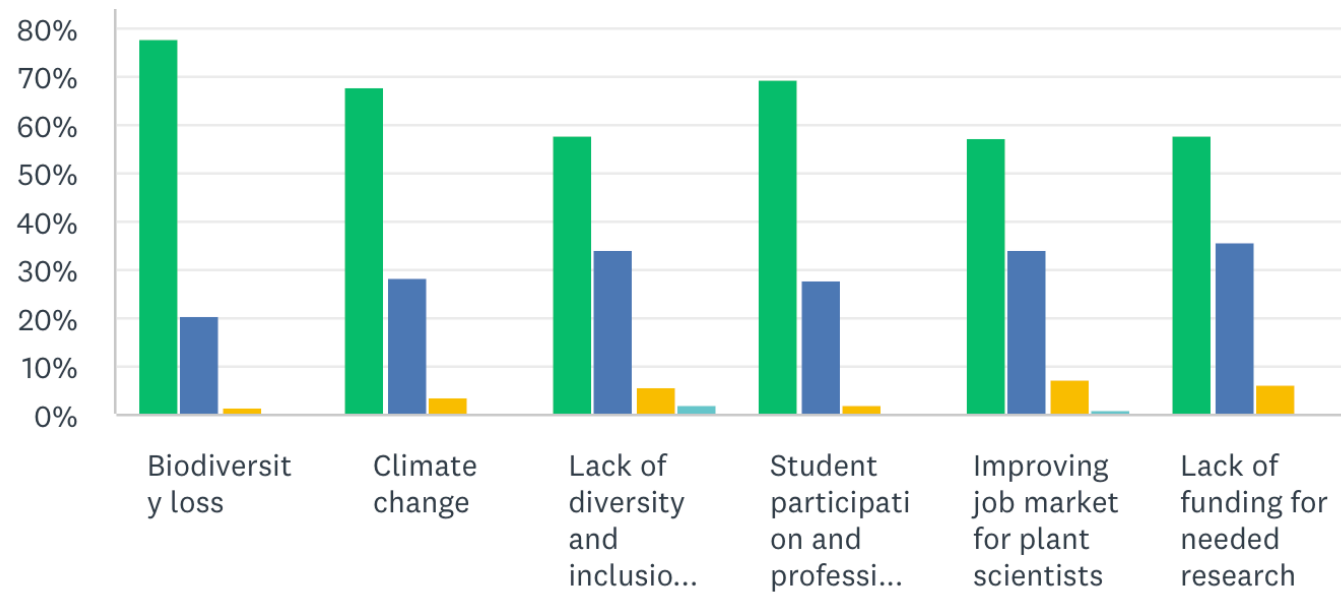
Are there other things you would like to know when evaluating candidates, or other things you take into account when choosing a candidate?

Comment themes include:

- Why they want to serve
- Mix of interests and backgrounds
- How they will ensure an equitable and inclusive scientific society
- Research background/proved ability of publications
- International outlook
- Time commitment and experience
- Stances on hot topic issues (OA, decolonizing botany, etc.)
- Willingness to try something new
- Character
- Vision for BSA
- What did they achieve in past BSA leadership positions
- CV, publications record

The above themes show that those who took this survey were interested in knowing more about the candidates, specifically their reason for wanting to serve, background in the botanical sciences, that there is a diverse pool of all types, and willingness to make changes that would lead to more equitable and diverse leadership in BSA.

How important is it that BSA put more effort/attention into each of the following:



Options were:

- Biodiversity loss
- Climate change
- Lack of diversity and inclusion of scientists in our field
- Student participation and professional development of young leaders
- Improving job market for plant scientists
- Lack of funding for needed research

Green = Very Important
Dark Blue = Somewhat Important
Yellow = Somewhat Unimportant
Light Blue = Not Important

The three strongest areas are Biodiversity loss, Student participation and professional development of young leaders, and Climate change. These are all forward-thinking areas that the Society needs to continue to focus on according to these survey responses.

If you add the Very Important and Somewhat Important options together, however, you will see that all of the items are of importance to the survey takers.

Comments

Comment themes include: unless working with other societies to confront lack of funding we don't need to focus on it, include "Global South" scientists, workshops on different careers, BSA should focus more outside of the US, passing on skills/methodology that are not easy to get due to lack of botany majors, botanical education decline in US education system, biodiversity loss over climate change, focus only on the DEI problems that it can solve, policy regarding plants and land use change, preference to let BSA decide.

What is the most important thing BSA could do or offer to you right now that meets your needs and/or the needs of our field? If you have one suggestion of a way to improve to Botanical Society of America for the future, what would it be? Any new initiatives you would like to see?

Publications

- *AJB* and *APPS* - maintain the high quality of these excellent publications.
- More Journals curated by the BSA for specific fields within Botany.
- Free open access to *AJB*.
- More outlets for publication - something like AoB.
- Greater transparency in the process through which editors are selected for BSA's journals.

DEI/International Members

- More focus on diversity, inclusivity and equality in all its affairs.
- Initiatives to help scientists that are being discriminated against.
- Strengthening the offer of opportunities targeted for minorities.
- Reach more members from developing nations.
- Maybe get like a poll on how many Indigenous people identify as that and see about participation numbers to possibly establish an advocacy group where it consists of various Indigenous people with BSA and have it geared towards understanding the dynamics between stewardship, biodiversity, and the symbiotic relationships that exist with the people and the land they occupy.
- Accessibility extend to everything BSA does.
- True international botanical society (at minimum of the Americas, plural).

Mentoring/Career Building/Events

- More mid-career outreach.
- Have some sort of networking/recruiting event specifically for students studying botany that want a job in botany, but don't want to go into academia.
- Regional/remote event opportunities.
- Better integration/networking of membership and interests.
- Young Botanists Meetup, strictly for Grad Students.
- Career mentoring for early-career and transitioning botanists/veg scientists.
- A robust online forum for us to communicate with each other.
- Virtual talks and workshops that either allow people to talk about their research (like the Black Botanist series) or give guidance on teaching a particular topic.
- Have a revolving door of guest lecturers for different topics which person at smaller Universities could reach out to, to have them do a web lecture or Training. Kind of try and expose students to more topics with less curriculum development for professors.
- More workshops.

Society

- To consider a merger of BSA and ASPB
- Strengthen links with agricultural research.
- Inclusion of botany and plant science in any academic curriculum.
- Improve connection with national agencies (BLM, USFS, etc.).
- I see the many small societies that contribute to Botany meetings and wonder whether consolidation is in order.
- I wish the dichotomy between those who see themselves as plant molecular biologists (ASPB folks) vs. botanists (BSA folks) could be erased.
- Network with other plant science societies globally.

Undergrad/Highschool/Public

- Making sure that botany/plant coverage remains visible in K-12 and early undergrad will help to keep plants as a career viable.
- Increasing diversity and decreasing plant awareness disparity in the undergraduate as well as general public populations.
- Introduce high school students (or earlier) to the idea that botanical fields offer rewarding professions.
- Make sure that the next generation of scientists feel welcomed in the society.

Conference

- Lower registration rates for conferences.
- Botany not taking place in the summer.
- Hybrid annual meetings.
- Physical talks broadcast online, preferably live, not pre-recorded.
- Have a paid*public* talk as part of the botany conference.

Public Policy/Mainstream Media

- Greater activity in local governments for urban landscaping changes and bringing plants into their actual position as key foundations to all life and ecosystems.
- Elevate coverage of plants somehow in ecological news stories covered by the mainstream media, emphasize critical importance of plants to life on Earth. Do a 'Nature' show on PBS!
- Vocalization of need to preserve ecosystem diversity.
- Get congress to identify botanical research as a national priority.

Funding/Awards

- Funding for student participation in database work on herbarium collections.
- Grants for postdocs, pre-tenured faculty, and tenured faculty. They could apply as students do and give presentations at conferences about what they did with the funding.
- I would love to see the few graduate grants be awarded to small labs.
- Create funds for those who have excellent work but no financial support.
- More recognition of people working in the gap between applied and basic plant sciences, e.g. conservation botanists.

Climate Change

- Working with other organizations on climate change and biodiversity.
- There were many comments about keeping climate change and biodiversity top of mind.

Membership

- More programs/different membership fees for non-tenure track faculty and/or people who finished their terminal degrees within the last few years.
- Organize chapters, Latin American, Asian, and African.
- Show how can Emeritus Faculty can be a benefit to the Society

Social Media

- More Twitter takeovers!