

Annual Report for the Developmental and Structural Section, 2023

1. The Developmental and Structural Section meeting will be held in association with the Botany 2023 meeting.
2. We awarded D&S Sectional Student Travel Awards of \$500, plus student registration, to two students who submitted an abstract to the Developmental and Structural Section and are attending the Botany 2023 meeting in person.
 - a. Yesenia Madrigal, “Assessment of the flowering genetic regulatory network in tropical orchids with different lifeforms.”
 - b. Deannah Neupert “The alteration to vegetative growth and gene expression supports the use of a novel aerial bulbil in *Mimulus gemmiparus* for reproduction.”
3. Cheadle Awards of \$500 each were given out to two students who submitted an abstract to the Developmental and Structural Section and are attending the Botany 2023 meeting in person.
 - a. Oluwatobi Oso, “Origin and distribution of leaf teeth in temperate woody angiosperm flora.”
 - b. Arthur Leung “Ultrastructural modifications facilitated the initial steps in the evolution of C4 photosynthesis in *Tribulus* (Zygophyllaceae).”
4. The 2023 Kaplan Dissertation Award was given to Haylee Nedblake from the University of Kansas, mentored by Lena Hileman, for her work on “Evolution of bee-exclusionary corolla width differences in *Penstemon*.” ***Please encourage your mentees who have passed their qualifying exam to apply for this award.***
5. The program director (Rob Baker) reported that Botany 2023 will have a total of 7 posters and 22 contributed papers from the Developmental and Structural Section, a bit down from the last two years. This is possibly due to the move away from hybrid conference format. We no longer define contributions into “Anatomy/Morphology” and “Evo-Devo” categories, but instead abstracts are submitted to the Developmental and Structural Section at large. We sponsored two symposia: (*Standing your ground: understanding plant defense from molecules to morphology & Whole genome duplications and impact on angiosperm character evolution*) and two colloquia (*Neotropical Pteridology: A Dedication to Robbin Moran & Ecological and Evolutionary Consequences of Genome Size Variation in Plants*) for Botany 2023.
6. Membership/enrollment in the Development & Structure section is on a general upward trajectory (see table below.) Membership numbers are reported from mid-year (June) and membership grows at the end of each year as annual memberships expire. We predict 2023 end-of-year enrollment to fall near 335 individuals.

	2018	2019	2020	2021	2022	2023
Mid-year (June) membership	243	228	251	296	359	282

7. The section finances are diminished compared to previous years due to reduced value from investments. The one fund that has increased in value is the Maynard Moseley Fund because of fundraising efforts over the last year. At the end of the 2021-2022 fiscal year (balance as of 9/30/2022, and before supporting symposia, colloquia, student travel and other events for the 2023 Botany conference), we had a total cash balance of \$94,392.34. These funds are distributed across the Development & Structure general fund, Development & Structure Student Travel fund, Katherine Esau Fund, Maynard Moseley

Fund, and the Vernon Cheadle Student Travel fund as detailed in the table below.

FY2022 was a tough year for investment performance. BSA lost \$1.5 million in the investment portfolio, which means that Development & Structure funds also took a proportional share of the overall loss. Focusing on the longer-term perspective, BSA, and therefore Development & Structure experienced several years of outstanding investment gains and FY2022 performance can be considered a painful correction. However, we have been told to expect poor performance again in FY2023. Therefore, this year, the section leadership was more conservative than usual with section spending on colloquia, symposia, and student travel awards. As recommended by BSA financial, our goal has been to keep spending below 5% per fund.

Type	Funds within BIP	Committee affiliation	Description	FY2020	FY2021	FY2022	FY2023
Sectional Account	D&S Section	D&S Section	Section funds (dues/donations) - used for business meeting food, sectional needs, etc.	\$11,535.29	\$10,769.49	\$13,861.08	\$9,462.24
Sectional Awards	D&S Student Travel Awards	D&S Section	Student travel award fund; used to distribute varying amounts of travel awards.	\$26,355.15	\$29,357.98	\$34,820.18	\$24,509.64
Sectional Awards	Katherine Esau Fund	D&S Section	This award was established in 1985 with a gift from Dr. Esau and is augmented by ongoing contributions. It is given to the graduate student who presents the outstanding paper in developmental and structural botany. Distributes \$500 each year.	\$25,338.12	\$25,168.37	\$30,146.36	\$22,941.59
Sectional Awards	Maynard Moseley Fund	D&S Section	The award is given to the best student paper, presented in either the Paleobotanical or Developmental and Structural sessions; established in 1995 to honor Moseley.	\$5,840.91	\$5,651.80	\$8,724.89	\$13,559.79
BSA Restricted Fund	Vernon I Cheadle Fund	D&S Section	The Botanical Society of America, in conjunction with the Developmental & Structural Section offers up to four (4), \$500 Vernon I. Cheadle Student Travel Awards. Awards are available to undergraduate and graduate students who will be attending and presenting a paper or poster at the annual meeting of the Botanical Society of America.	\$22,914.96	\$25,651.01	\$33,403.41	\$23,919.08

Funds as of 9/30/2022

- Jessica Budke is ending her third year as chair (thank you Jessica for your excellent service! Rob Baker is beginning his third year as program director, and Lena Hileman is beginning her second year as the secretary-treasurer of the section. We are now back on a rotation where we will elect one new sectional officer every year. We are holding elections this year for a chair of the section.

Sincerely,

J.M. Budke, Ph.D.

Associate Professor, University of Tennessee

Developmental & Structural Section Chair, Botanical Society of America

R. Baker, Ph.D

U.S. National Park Service

Developmental & Structural Section Program Director, Botanical Society of America

L.C. Hileman, Ph.D.

Developmental & Structural Section Secretary and Treasurer, Botanical Society of America

Professor, University of Kansas