

MIRANDA A. SINNOTT-ARMSTRONG

Postdoctoral Research Fellow
University of Cambridge
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EDUCATION

Ph.D., **Yale University**, Ecology and Evolutionary Biology 2019
Thesis: Understanding fruit color diversity: global patterns and case studies in Viburnum
Advisor: Michael Donoghue

M.Sc., **Yale University**, Ecology and Evolutionary Biology 2016

Sc.B. and A.B., **Brown University**, Environmental Science and Linguistics 2012

ACADEMIC APPOINTMENTS

NSF Postdoctoral Research Fellow in Biology Sept 2019-present
University of Cambridge and the University of Colorado-Boulder
Advisors: Silvia Vignolini and Stacey Smith

FELLOWSHIPS AND AWARDS

National Science Foundation Postdoctoral Research Fellowship in Biology 2019 - present

Graduate Student Symposium Best Talk (1st place), Yale University 2019

Graduate Student Symposium Best Talk (1st place), Yale University 2017

Graduate Student Symposium Best Talk (2nd place), Yale University 2016

National Science Foundation Graduate Research Fellowship 2013 - 2018

PUBLICATIONS

*Co-first authorship ^Undergraduate co-author

Sinnott-Armstrong, M.A., Deanna, R., Pretz, C.A., Liu, S., Harris, J., Dunbar-Wallis, A., Smith, S.D., Wheeler, L.C. How to approach the study of syndromes in macroevolution and macroecology. *Accepted at Ecology & Evolution*, preprint at: <https://ecoevorxiv.org/bt2km/>

Sinnott-Armstrong, M.A., Donoghue, M.J., and Jetz, W. (2021) Dispersers and environment drive global variation in fruit color syndromes. *Ecology Letters* 24:1387-1399. <https://doi.org/10.1111/ele.13753>.

Sinnott-Armstrong, M.A., Vignolini, S., and Ogawa, Y. (2020) Protocol for extraction and EM visualization of lipids in *Viburnum tinus* fruit using cryo-ultramicrotomy. *STAR Protocols* 1, 100201. DOI: <https://doi.org/10.1016/j.xpro.2020.100201>

Middleton*, R., **Sinnott-Armstrong***, M.A., Ogawa, Y., Jacucci, G., Moyroud, E., Rudall, P., Prychid, C., Conejero, M., Glover, B., Donoghue, M.J., and Vignolini, S. (2020) *Viburnum tinus* fruits use lipids to produce metallic blue structural color. *Current Biology* 30, 1-7, October 5.

Sinnott-Armstrong, M.A., Lee, C., Clement, W., and Donoghue, M.J. (2020) Fruit syndromes in *Viburnum*: correlated evolution of color, nutritional content, and morphology in bird-dispersed fleshy fruits. *BMC Evolutionary Biology* 20, 7:1-19.

Park, B., **Sinnott-Armstrong, M.A.**, Schlutius[^], C., Penagos Zuluaga, J.-C., Simpson, R.G., Spriggs, E.L., Benavides, E., Eaton, D.A.R., Landis, M.J., and Donoghue, M.J. (2019) Sterile marginal flowers enhance insect visitation and fruit set in the hobblebush (*Viburnum lantanoides*) at multiple spatial scales. *Annals of Botany* 123:381-390.

Sinnott-Armstrong, M.A., Downie[^], A.E., Federman, S., Valido, A., Jordano, P., and Donoghue, M.J. (2018) Global geographic patterns in the colors and sizes of animal-dispersed fruits. *Global Ecology & Biogeography* 27:1339-1351.

Federman, S., **Sinnott-Armstrong, M.**, Baden, A.L., Chapman, C.A., Daly, D.C., Richard, A.R., Valenta, K., and Donoghue, M.J. (2017) The paucity of frugivores in Madagascar may not be due to unpredictable temperatures or fruit resources. *PLoS ONE* 12(1):e0168943.

MANUSCRIPTS IN PREPARATION (AVAILABLE UPON REQUEST)

Sinnott-Armstrong, M.A., Middleton, R., Ogawa, Y., Rudall, P., Moyroud, E., Glover, B., Vignolini, S., and Donoghue, M.J. Structural color, cell walls, and the evolution of *Viburnum* fruits. *In prep.*

Sinnott-Armstrong, M.A., Ogawa, Y., van der Kerkhov, G., Vignolini, S., and Smith, S.D. Convergent morphology but divergent chemistry: independent origin of a lipid-based photonic structure in the fruits of *Lantana strigocamara*. *In prep.*

FUNDING

| | |
|---|------------|
| Teams Grant, Undergraduate Research Opportunities Program \$3000 | 2021 |
| <i>Funding for summer undergraduate researchers</i> | |
| Full Proposal, Oak Ridge National Lab facility usage time | 2020 |
| Rapid Access Grant, Oak Ridge National Lab facility usage time | 2020 |
| National Science Foundation \$276,000 | 2019-2023 |
| Postdoctoral Research Fellowship in Biology [extended one year due to covid] | |
| MacMillan Center \$6,800 | 2018 |
| International Dissertation Research Fellowship, initial \$4800 renewed for \$2000 | |
| Graduate School of Arts and Sciences Conference Travel Grant \$750 | 2018 |
| To attend international conference in Cambridge, UK (Living Light) | |
| Yale Institute for Biospheric Studies \$5,000 | 2017 |
| Doctoral Dissertation Improvement Award | |
| EEB Departmental Chair's Fund \$1950 | 2014, 2016 |
| microMORPH \$3,500 | 2016 |
| Cross-Training Grant for cross-disciplinary lab visit to Cambridge, UK | |
| National Science Foundation \$138,000 | 2013-2018 |
| Graduate Research Fellowship | |

DEPARTMENTAL SEMINARS

CERMAV | Université de Grenoble, Grenoble, France 2019

CONFERENCE PRESENTATIONS *Oral ^Poster

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|---|------|
| Virtual Botany Meeting Online | 2021 |
| Society for Integrative and Comparative Biology Virtual Annual Meeting | 2021 |
| Virtual Botany Meeting Online | 2020 |
| Living Light Meeting Online | 2020 |
| Evolution Meeting Providence, RI | 2019 |
| Iridescence Workshop Cambridge, UK | 2019 |
| Sussex Symposium New Haven, CT | 2018 |
| Living Light Meeting Cambridge, UK | 2018 |
| Evolution Meeting Portland, OR | 2017 |
| Evolution Meeting Austin, TX | 2016 |

TEACHING

COURSES

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|---|------|
| Lab in Plant Diversity, Teaching Fellow, Yale University | 2015 |
| Evolution of Plant Diversity, Teaching Fellow, Yale University | 2015 |
| Evolutionary Biology, Teaching Fellow, Yale University | 2015 |
| Functional Traits in Evolutionary Biology, Teaching Fellow, Yale University | 2014 |
| Evolutionary Biology, Teaching Assistant, Brown University | 2010 |

WRITING WORKSHOPS

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|---|-----------|
| Graduate Writing Fellow at the Center for Teaching and Learning | 2014-2018 |
| <i>Science Team Leader</i> | 2016 |
| <i>Coordinator of Writing Fellows</i> | 2017-2018 |

Workshops taught (*developed by me)

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| Introduction to Adobe Illustrator, two parts* | 3 sessions |
| Writer's Technology Toolkit | 1 session |
| Reproducible Research* | 1 session |
| Creating a Professional Research Website* | 2 sessions |
| Public Speaking Clinic* | 1 session |
| NSF GRFP Peer Review group, four parts* | 1 semester |
| Principles of Scientific Writing | 2 sessions |
| Figure-making in the Sciences | 3 sessions |
| Writing a Dissertation Prospectus in the Sciences | 1 session |
| Critical Reading Strategies | 1 session |
| Crafting Effective Slides* | 3 sessions |
| Preparing a Poster Presentation | 2 sessions |

MENTORING & OUTREACH

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| <i>Students supervised</i> *undergrad ^high school student | |
| Kayleigh Dodson* (CU-Boulder) | Feb 2021 - present |
| Rachel Dale* (CU-Boulder) | summer 2021 |
| Eric Ringen* (Yale) | 2017 |
| Zoe Makoul^ | 2016 |
| Ellie Handler* (Yale) | 2016 |
| Alec Downie* (Yale, honors thesis resulting in co-authorship) | 2014-2016 |

Mentoring activities

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| Mentor for <i>Cientifico Latino</i> grad fellowship applicants | 2020, 2021 |
| PLANTS Mentor, Botany 2021 | 2021 |
| Mentor, Society of Integrative Comparative Biology 2021 meeting | 2021 |
| Mock Interviewer with <i>Cientifico Latino</i> | 2021 |
| Senior Mentor for Botanical Society of America grad fellowship applicants | 2020 |

Outreach and public engagement

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| University of Cambridge Science Festival on Nanomaterials | 2021 |
| Reverse Science Fair with CU Science Ambassadors | 2020 |
| Virtual Meet a CU Scientist | 2020 |

PROFESSIONAL SERVICE

Botanical Society of America *Early Career Professional Development Committee* 2021-present

CU-Boulder EBio working group on diversity, equity, and inclusion 2020-present

Organizing committee, Living Light ECR Conference September 22/23, 2021
90 talks, 400 registered attendees

Journal peer reviewer: *Journal of Ecology*; *Evolution*; *Global Ecology & Biogeography*;
New Phytologist; *Perspectives in Plant Ecology, Evolution, and Systematics*;
Proceedings of the Royal Society B

Society Membership: *Botanical Society of America*; *Society for the Study of Evolution*;
Association for Tropical Biology and Conservation; *Society for Integrative and Comparative Biology*