Stanford



Callie Chappell

Postdoctoral Scholar, Bioengineering

Bio

BIO

Callie Chappell is a Ph.D. candidate in Ecology and Evolution with the Fukami Lab. Callie is an ecologist and studies how genetic variation influences how ecological communities change over time. Her dissertation research focuses on nectar-inhabiting yeast and bacteria. With a background in bioengineering, Callie is particularly interested in the conservation and policy impacts of gene editing wild organisms and the cascading impacts that genetic variation can have on ecological and evolutionary processes.

Outside of the lab, Callie leads several groups that work in the intersection of science and society. Callie was the 2020-21 President of Stanford Science Policy Group (SSPG), a chapter of the National Science Policy Network and student organization that engages scientists with policy on the local, state, national, and international level. Callie also co-leads BioJam, an education program that collaborates with high school students and community organizations from low- income communities in the Greater Bay Area of California. BioJam participants and organizers learn together about bioengineering and biodesign through the lens of culture and creativity. Callie is also a professional artist and scientific illustrator. Callie has participated in several fellowships at the intersection of science and society including the Mirzayan Science and Technology Policy with the National Academies of Sciences, Engineering, and Medicine (2021), Graduate Ethics Fellow with Stanford's McCoy Center for Ethics in Society (2019-2020), BioFutures Fellow with the Stanford Bio Policy and Leadership in Society (Bio.Polis) Initiative (2020-2021), and Katherine S. McCarter Policy Fellow with the Ecological Society of America (2020).

HONORS AND AWARDS

- Graduate Research Fellowship (GRFP), National Science Foundation (2017)
- Hubert Shaw and Sandra Lui Graduate Fellowship (SGF), Stanford University (2017)
- Excellence in Teaching Award, Department of Biology, Stanford (2019)
- Frances Lou Kallman Award, Department of Biology, Stanford (2020)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Graduate Council Chair (2020), American Society of Naturalists (2019 present)
- Member, American Society of Microbiology (2018 present)
- Member, Ecological Society of America (2018 present)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University, BIO-PHD (2023)
- B.S., University of Michigan , Biology (2016)
- M.Sc., University of Michigan , Molecular, Cellular, & Developmental Biology (2017)

STANFORD ADVISORS

• Drew Endy, Postdoctoral Faculty Sponsor

Teaching

COURSES

2022-23

• Introduction to Research in Ecology and Evolutionary Biology: BIO 47 (Spr)

Publications

PUBLICATIONS

- Fostering science-art collaborations: A toolbox of resources. *PLoS biology* Chappell, C. R., Muglia, L. J. 2023; 21 (2): e3001992
- Wide-ranging consequences of priority effects governed by an overarching factor. *eLife* Chappell, C. R., Dhami, M. K., Bitter, M. C., Czech, L., Herrera Paredes, S., Barrie, F. B., Calderon, Y., Eritano, K., Golden, L., Hekmat-Scafe, D., Hsu, V., Kieschnick, C., Malladi, et al 2022; 11
- Bioengineering Everywhere, for Everyone ISSUES IN SCIENCE AND TECHNOLOGY Chappell, C. R., Perez, R., Takara, C. 2022; 38 (3): 88-90
- Nectar yeasts: a natural microcosm for ecology. *Yeast (Chichester, England)* Chappell, C. R., Fukami, T. 2018; 35 (6): 417–23
- Nectar yeasts: a natural microcosm for ecology *YEAST* Chappell, C. R., Fukami, T. 2018; 35 (6): 417–23