# FY 2024 Annual Report



#### **Unit Name**

## Integrative Community Ecology Unit

## **Collaborations**

Asa Conover, University of California Berkeley, USA, Stable Isotope Studies of Carnivorous Pitcher Plants Andrew Letten, University of Queensland, Australia, Microbial Coexistence Theory

James Orr, University of Queensland, Australia, Microbial Coexistence Theory

Simon Hart, University of Queensland, Australia, Ecological Ranking Dynamics Theory

Masato Yamamichi, National Institute of Genetics, Japan, Ecological Ranking Dynamics Theory

Kadeem Gilbert, Michigan State University, USA, Carnivorous plant traits and leaf economics

Ashwil Klein, University of the Western Cape, South Africa, AJ-Core Soybean Project Grant

Stephen Kamau Wanjiru, Catholic University of East Africa, Kenya, AJ-Core Soybean Grant

Itumeleng Moroenyane, Stellenbosch University, South Africa, AJ-CORE funded soybean project

## **Research Personnel**

Matin Miryeganeh, Staff Scientist

Samuel Ross, Staff Scientist

Su'ad Yoon, Postdoctoral Scholar, USDA NIFA postdoctoral fellow at University of Hawai'i

Toyo Vignal, Postdoctoral Scholar

Rahel Tanja Collyer-Hoar, PhD Student

Peter James Reynolds, PhD Student

Widya Liana Aji, PhD Student

Nonno Hasegawa, PhD Student

Amy Hana Morrell, PhD Student

Stephanie Akeyo Nyapela, Research Intern

Karla Paola Lopez Martinez, Research Intern

Anthony Thomas Gibbons, Visiting Research Student

## Scholarly Contributions and Creative Productions (by Faculty)

#### Journal Article

- Gilbert, Kadeem J., David Armitage, Ulrike Bauer, Kenji Fukushima, Laurence Gaume, Rachel Love, Qianshi Lin, et al. 2025. "Construction Costs and Tradeoffs in Carnivorous Pitcher Plant Leaves: Towards a Pitcher Leaf Economic Spectrum." Annals of Botany.
- 2. Nakagawa, Shinichi, David W. Armitage, Tom Froese, Yefeng Yang, and Malgorzata Lagisz. 2025. "Poor Hypotheses and Research Waste in Biology: Learning from a Theory Crisis in Psychology." BMC Biology 23:33.

- 3. Miryeganeh, Matin, and David Armitage. 2024. "Epigenetic Responses of Trees to Environmental Stress in the Context of Climate Change." Biological Reviews.
- 4. Armitage, David. 2024. "To Remain Modern the Coexistence Program Requires Modern Statistical Rigour." Nature 632.
- 5. Ross, Samuel, Nicholas Friedman, Kenneth Dudley, Takuma Yoshida, Masashi Yoshimura, Evan Economo, David Armitage, and Ian Donohue. 2024. "Divergent Ecological Responses to Typhoon Disturbance Revealed via Landscape-Scale Acoustic Monitoring." Global Change Biology 30.
- 6. Terry, J., and David W. Armitage. 2024. "Widespread Analytical Pitfalls in Empirical Coexistence Studies and a Checklist for Improving Their Statistical Robustness." Methods in Ecology and Evolution 15:594–611.

## **Presentation at Conference**

- 1. Armitage, David W. 2024b. "Forecasting the Climate Sensitivity of Movement Corridors for Effective Climate Tracking." Annual Meeting of the Ecological Society of Australia, December.
- 2. Armitage, David W. 2024a. "Forecasting the Climate Connectivity of Japan's Flora ." Joint Meeting of the Annual Meeting of the Society of Population Ecology and Taiwan-Japan Ecology Workshop 2024, November.
- 3. Armitage, David W. 2024d. "Sarraceniaceae: A Model Clade for Community Ecology and Beyond." 20th International Botanical Congress, July.
- 4. Armitage, David W. 2024c. "Miyadi Award Lecture: The Importance of Natural History in Testing Ecological Theory." Annual Meeting of the Ecological Society of Japan, March.
- 5. Armitage, David W. 2025. "Forecasting the Climate Connectivity of Japan's Flora." Annual Meeting of the Ecological Society of Japan, March.

## **Seminars**

1. Armitage, David W. 2025. "Mechanisms Shaping Species' Geographic Ranges in the Anthropocene," n/a. Invited Seminar

## **Scholarly Contributions (by Unit Members)**

Name of Unit Member	Туре	Title	Outlet	Publisher	Year Pub
Samuel R.P- J. Ross	Journal Article	The Acoustic Index User's Guide: A practical manual for defining, generating and understanding current and future acoustic indices	Methods in Ecology and Evolution	Wiley	2024
Samuel R.P- J. Ross	Journal Article	A dataset of acoustic measurements from soundscapes collected worldwide during the COVID-19 pandemic	Scientific Data	Nature	2024
Samuel R.P- J. Ross	Journal Article	Measuring the Response Diversity of Ecological Communities Experiencing Multifarious Environmental Change	Global Change Biology	Wiley	2024
Samuel R.P- J. Ross	Presentation at Conference	Acoustic ecology: multi-scale ecological insights from passive acoustic sensing	Ecological Society of Japan		2025

# Honors, Awards & Fellowships

2024-03-03 - Ongoing

Miyadi Award, 日本生態学会宮地賞, 2024, Ecological Society of Japan (ESJ)

## **External Service**

2025-03-01 - Ongoing Moai Mentorship Program Mentor, Ecological Society of Japan, Serve as mentor for

early-career researchers in ecology, with regular meetings

2025-03-01 - Ongoing Associate Editor of Journal of Ecology, British Ecological Society, Associate Editor

for the journal

# **Outreach Activities (For Unit Members Only)**

2025-03-01 David Armitage, Charmed by the cobra: new findings concerning the ecology of

Darlingtonia californica, International Carnivorous Plant Society

# Workshops and Seminars (Organized and Hosted by Faculty/Units)

Speaker Name(s)	Title	Location	Date
Migeul Araujo, Chiou-Rong Sheue, Chihiro	Symposium on new approaches to understanding	Naha,	2025-
Myotoishi, Chu-Chia Kuo, Peter Chesson	the effects of global change on plant communities	Japan	03-01