

FERESA CORAZON P. CABRERA, PHD

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Education

- University of Hawai'i at Mānoa (UHM), School of Life Sciences, USA August 2024
Ph.D., & M.Sc., in Botany (Molecular Biology)
with specialization in Ecology, Evolution and Conservation Biology
- University of San Carlos (USC), Philippines March 2018
B.Sc., Marine Biology

Appointments

- 1 University of California Santa Cruz 2025 – Present
Postdoctoral Research Scientist (PI: Aide Macias-Muñoz)
— investigating evolution in Cnidarian jellyfish systems *Aurelia*, and *Cassiopea*; leading husbandry, evo-devo, and genomics initiatives in *Aurelia*, and establishing the foundation for a research program on *Cassiopea*.
- 2 University of California San Francisco 2024
Postdoctoral Research Affiliate (PI: Su Guo)
— investigated genetic and molecular basis of behavior zebrafish using CRISPR/Cas9 and functional genomics to uncover gene–environment interactions
- 3 University of Hawai'i at Mānoa School of Life Sciences 2018 – 2024
Research Assistant (PI: Alison Sherwood) 6 yrs
— led biodiversity discovery and genomic characterization efforts as part of the [NSF Biodiversity](#) Survey of Hawaiian Mesophotic Algae, and [NSF PurSUIT](#): Discovery and characterization of mesophotic seaweeds in Hawai'i: genomic adaptations to low light environments, contributing to 10+ publications
- 4 Smithsonian Institution 2022 – 2023
Research Fellow (PI: Sonia Rowley and Andrea Quattrini) 1 yr
— resolved evolutionary relationships of octocorals at species and population scales using targeted UCE-based SNP enrichment as part of [NSF EPSCoR](#): Novel target-enriched genomic approaches to assess the diversity of Gorgonian Octocorals on Indo-Pacific Mesophotic Coral Reefs
- 5 University of San Carlos, Department of Biology 2017 – 2018
Research assistant (PI: Paul Geraldino) 2 yrs
— conducted field-based collections and applied analytical chemistry approaches (GC–MS, HPLC) to profile and isolate secondary metabolites, particularly polyunsaturated fatty acids, from red seaweeds in the genus *Halymenia*
- 6 Philippine Local Government agencies 2015 – 2017
Field scientist 2 yrs
— conducted ecological field research and led science communication initiatives for major environmental programs, including the Bantayan Blue Crabs Project, Filipinovation Coral Reef Restoration Program, Turtle Rescue and Rehabilitation with the Department of Environment and Natural Resources, and environmental impact assessments for coastal development projects

Publications

Peer-Reviewed Journal Articles († undergraduate mentee)

1. **Cabrera, F. P.**, Smith, C. M., Spalding, H. L., Hauk, B. B., Kosaki, R. K., & Sherwood, A. R. (2025). Confirming a new species of *Amalthea* D'Archino & W.A.Nelson (Halymeniales, Rhodophyta) from the mesophotic zone of Hawai'i through taxogenomics. *Cryptogamie Algologie* 46(1), 1-17. DOI: [10.5252/cryptogamie-algologie2025v46a1](https://doi.org/10.5252/cryptogamie-algologie2025v46a1)
2. †Allsopp, K. R., **Cabrera, F. P.**, Kosaki, R. K., Hauk, B. B., Wagner, D., Matadobra, S. J., & Sherwood, A. R. (2025). A new mesophotic species *Platoma piuhiluum* sp. nov. (Schizymeniaceae) from the Papahānaumokuākea Marine National Monument, Hawai'i, USA. *Phycologia*, 64(2), 108-117. DOI: [10.1080/00318884.2025.2484035](https://doi.org/10.1080/00318884.2025.2484035)
3. **Cabrera, F. P.**, Spalding, H. L., Kosaki, R. K., Smith, C. M. & Sherwood, A. R. (2024). Organellar genomic characterization of *Anunuluaebu liula* representing a new genus and species of Phyllophoraceae (Gigartinales, Rhodophyta) from the mesophotic zone of Hawai'i. *Journal of Phycology*. DOI: [10.1111/jpy.13427](https://doi.org/10.1111/jpy.13427)
4. **Cabrera, F. P.**, J. M., Spalding, H. L., Kosaki, R. K., Smith, C. M. & Sherwood, A. R. (2022). Cryptic diversity in the genus *Croisetia* (Kallymeniaceae, Rhodophyta) from Hawaiian mesophotic reefs. *Phycologia*, DOI: [10.1080/00318884.2022.2096823](https://doi.org/10.1080/00318884.2022.2096823)

5. Alvarado, E. A., **Cabrera, F. P.**, Paiano, M. O., Fumo, J. T., Spalding, H. L., Smith, C. M., ... & Sherwood, A. R. (2022). Unveiling mesophotic diversity in Hawai'i: two new species in the genera *Halopeltis* and *Leptofaucea* (Rhodymeniales, Rhodophyta). *Algae*, 37(4), 249-264. DOI: [10.4490/algae.2022.37.10.31](https://doi.org/10.4490/algae.2022.37.10.31)
6. Paiano, M. O., Fumo, J. T., **Cabrera, F. P.**, Kosaki, R. K., Spalding, H. L., & Sherwood, A. R. (2022). *Calliblepharis yasutakei* sp. nov. and *Hypnea tsudae* sp. nov. (Cystocloniaceae, Rhodophyta): novel diversity from the Hawaiian Islands. *Phytotaxa*. DOI: [10.11646/phytotaxa.572.1.5](https://doi.org/10.11646/phytotaxa.572.1.5)
7. Sherwood, A. R., **Cabrera, F. P.**, †Kalaiwaa, G., Fumo, J. T., Spalding H. L., Kosaki, R. K., Wagner D. & Paiano, M. O. (2022). A new species of *Gibsmithia* (Dumontiaceae, Rhodophyta) from mesophotic depths of the Papahānaumokuākea Marine National Monument, Hawai'i, USA, *Phycologia*, 61(5), 558-569, DOI: [10.1080/00318884.2022.2093540](https://doi.org/10.1080/00318884.2022.2093540)
8. Bernard, J., Wall, C. B., Costantini, M. S., Rollins, R. L., Atkins, M. L., **Cabrera, F. P.**,... & Amend, A. S. (2021). Plant part and a steep environmental gradient predict plant microbial composition in a tropical watershed. *The ISME Journal*, 15(4), 999-1009. DOI: [10.1038/s41396-020-00826-5](https://doi.org/10.1038/s41396-020-00826-5)
9. Sherwood, A. R., Paiano, M. O., Wade, R. M., **Cabrera, F. P.**, Spalding, H. L., & Kosaki, R. K. (2021). Biodiversity of Hawaiian Peyssonneliales (Rhodophyta). 1. Two new species in the genus *Ramicrosta* from Lehua Island. *Pacific Science*, 75(2), 185-195. DOI: [10.2984/75.2.6](https://doi.org/10.2984/75.2.6)
10. Sherwood, A. R., **Cabrera, F. P.**, Spalding, H. L., Alvarado, E.A., Smith, C.M., Hauk, B.B., Matadobra, S.J., Kosaki, R.K. and Paiano, M. O. (2021). Biodiversity of Hawaiian Peyssonneliales (Peyssonneliaceae, Rhodophyta): new species in the genera *Incendia* and *Seiria*. *Phytotaxa*, 524(1), 14-26. DOI: [10.11646/phytotaxa.524.1.2](https://doi.org/10.11646/phytotaxa.524.1.2)
11. Sherwood, A. R., Paiano, M. O., **Cabrera, F. P.**, Spalding, H. L., Hauk, B. B., & Kosaki, R. K. (2021). *Ethelia hawaiiensis* (Etheliaceae, Rhodophyta), a New Mesophotic Marine Alga from Manawai (Pearl and Hermes Atoll), Papahānaumokuākea Marine National Monument, Hawai'i. *Pacific Science*, 75(2), 237-246. DOI: [10.2984/75.2.6](https://doi.org/10.2984/75.2.6)
12. Paiano, M. O., Huisman, J. M., **Cabrera, F. P.**, Spalding, H. L., Kosaki, R. K., & Sherwood, A. R. (2020). *Haraldiophyllum hawaiiense* sp. nov. (Delesseriaceae, Rhodophyta): a new mesophotic genus record for the Hawaiian Islands. *ALGAE*, 35(4), 337-347. DOI: [10.4490/algae.2020.35.11.5](https://doi.org/10.4490/algae.2020.35.11.5)
13. **Cabrera, F. P.**, Huisman, J. M., Spalding, H. L., Kosaki, R. K., & Sherwood, A. R. (2021). Diversity of Kallymeniaceae (Gigartinales, Rhodophyta) associated with Hawaiian mesophotic reefs. *European Journal of Phycology* 57(1): 68-78, DOI: [10.1080/09670262.2021.1891462](https://doi.org/10.1080/09670262.2021.1891462)

Manuscripts in preparation

Cabrera, F.P., & Sherwood, A.R. Genomic adaptations of algae in twilight zones. Target Journal: Molecular Biology and Evolution. Target Submission: August 2026

Cabrera, F.P., Mays, A. & Macías-Muñoz, A. Comparative genomic analysis of the emerging model genus *Cassiopea*. Target Journal: Genome Biology and Evolution. Target Submission: September 2026

Conference Presentations

8th International Cassiopea Workshop — St. Augustine, FL, June 2–8, 2025

Talk: *Decoding Genomic Drivers of a Regenerating, Symbiotic Cnidarian: The Case of Cassiopea*

Phycological Society of America Annual Meeting — Providence, RI, June 24–30, 2023

Talk: *A Taxogenomic Journey on Investigating the Morphotypes of Hawaiian Amalthea (Halymeniales, Rhodophyta)*

Gordon Research Conference: Mesophotic Coral Ecosystems — Ventura, CA, February 19–24, 2022

Poster: *Tale of Two Orders: Diversity of Gigartinales and Halymeniales (Rhodophyta) Associated with the Hawaiian Mesophotic Reefs*

From High Islands to the Ocean Floor: Pacific Island Plants at the Extreme (Botany Conference) — Anchorage, AK, July 24–27, 2022 (Invited Speaker)

Talk: *Chronicles of Deep Reef Flowers: Biodiversity, Biogeography, and Adaptations of Hawaiian Mesophotic Expanded Red Blades in the Orders Gigartinales and Halymeniales*

Hawai'i Conservation Conference — Honolulu, HI, July 27–29, 2021

Talk: *Characterizing Pseudocryptic Diversity in Hawaiian Mesophotic Red Blades of the Genus Croisetia*

Global Coral Reef Week Virtual Meeting, July 1–14, 2020

Talk: *Chronicles of Deep Reef Flowers: Diversity of Kallymeniaceae (Gigartinales, Rhodophyta)*

Phycological Society of America 73rd Annual Meeting — Fort Lauderdale, FL, June 23–27, 2019

Talk: *Molecular Reappraisal of Hawaiian Expansive Red Blades in the Genus Kallymenia (Gigartinales, Rhodophyta)*

48th Annual Convention, Federation of Institutions for Marine and Freshwater Science — Northern Samar, Philippines, September 21–23, 2016

Talk: *Taxonomy, Abundance, and Distribution of the Marine Diatom Family Chaetoceraceae in the Eastern Coast of Mactan Island, Cebu, Philippines*

47th Annual Convention, Federation of Institutions for Marine and Freshwater Sciences — Eastern Samar, Philippines, October 19–22, 2015

Talk: *Shallow Water Echinoids off the Eastern Coast of Mactan Island, Philippines*

27th Heinrich Schoenig BioSymposium — Cebu, Philippines, March 14, 2015

Poster: *Diversity and Abundance of Corallivores in a Protected and an Unprotected Reef in Mactan Island, Cebu, Philippines*

Scientific Communication

Outreach

- **Bernice Pauahi Bishop Museum.** 2020–2024: Content Writer for the Mesophotic Coral Ecosystems exhibit in the Richard T. Mamiya Science Adventure Center and contributor to [“Taxonomy: Our Lives Depend On It”](#) archived exhibit (July 23, 2022 – February 19, 2023). 2018–2024: Earth Day Table Volunteer, contributed annually to environmental outreach
- **‘Ōlelo Community Media.** 2021–2022: Creative Director (Storyboard) and Science consultant for [Sugilanon](#), a 30-minute, six-episode series showcasing diverse community voices airs every 2nd Saturday at 6:00 PM and Thursdays at 4:30 PM on on ‘Ōlelo 53. First episode.
- **Kalihi Uka Elementary School.** February 2023, Resource Speaker for STEAM night. Introduced kids ages 4–11 (400 attendees) to a touch tank diversity of algae and emphasizing their global importance and taught them how to press algae using DIY mini herbarium press kits.
- **University of Hawai‘i Sea Grant College Program.** August 2022, Resource Speaker for a Community Science-Art Workshop Introduced a wide cross-section of the community (30 attendees) to the ecology, biology, diversity of common native seaweeds in Hawai‘i while seaweed-inspired alcohol ink paintings
- **Association of Filipino Scientists in America (AFSA).** 2021, Resource Speaker for the event [Connected By Oceans: Intersections between Filipino/a/x marine scientists by AFSA](#). Shared my work intersections with art, culture and community as an early career researcher to the Association of Filipino Scientist in America with over a thousand global audience. Talk live recorded with 1,400 public views.
- **University of San Jose-Recoletos Science.** May 2022, Resource Speaker for Career Talk Delivered a presentation to over 400 junior high Filipino to inspire them on pursuing STEM careers and provide an overview of my research targeted towards a public audience.

Press

- [UH Mānoa excellence in botany receives national spotlight | University of Hawai‘i System News](#) Invited speaker to the Botany 2022 conference to talk about living in midwater (30–200 m) environments
- [4 species of limu receive Hawaiian names | University of Hawai‘i System News](#) Featured my second lead-author publication describing four deep-water algal species new to science; partnered with the Papahānaumokuākea Cultural Working Group to develop Hawaiian species names through traditional naming practices
- [Scientists name new species of limu from Papahānaumokuākea after island conservation leader Laura Thompson | Papahānaumokuākea News](#) Features two new species I described named in honor of conservation leaders Laura Kalaukapu Thompson and Skippy Hau.
- [Voice of the Sea TV: Deep Sea Algae](#) (TV episode documenting our research as member of the Sherwood Algal Biodiversity Laboratory)
- [Olelo TV Series Sugilanon: Stories from Different places.](#) Worked on this series as a scientific consultant/storyboard director. First of a six-episode local TV series made available: [Video link](#)

Teaching Experience. W – Winter, F – Fall, S – Spring

BIOE 106 <i>Principles of Genetics for EEB</i>	W2026
BIOE109: <i>Evolution</i>	F2025
HWST 155: <i>Nā Limu Hawai'i Windward Community College,</i>	F2024
BOT 201: <i>Plant Evolutionary Diversity</i>	S2020
BOT 480: <i>Algal Diversity and Evolution</i>	F2019 – S2022

Mentoring (*Self-identifies as an underrepresented minority in STEM)

Ryan Veeninga, Sofia Lewis*, Laia Mayne, Sasha Deever	2025 – present
Kazumi Allsopp, Sophie Paradis	2022 – 2024
Rosalie Michot, Eve Cook	2022
Ashley Edwards	2021
Charles Hambley*, Giavonna Kaua Kalaiwa'a*, Rebecca Katz	2019

Professional Development

UCSC Teaching and Learning Center Equity-Minded Mentoring (EMM) Certificate Program (in progress)	2026
UC Santa Cruz Postdocs Association (USPA) Future Faculty Workshop Series	2025
California Institute for Regenerative Medicine (CIRM) Community Outreach and Patient Advocacy	
Academic Excellence Program (ACE) Secret Society of Mentors (SSM) Workshop	
FUTURE in BIOLOGY Field-based Teaching Training	

Leadership Experience and Service

Review Committee Member, Center to Advance Mentored, Inquiry-Based Opportunities (CAMINO)	2026
Review Committee Member, Hawai'i Conservation Conference <i>Imi i ke Ewe o ka 'Aina</i>	
Review Committee Member, Hartnell College to UCSC Genomics Transfer Pathways	
Consortium Lead, Cassiopea Global Phylogenomics Project	
Committee Member, UCSC EEB Inclusion, Diversity, Equity, and Action (IDEA) committee	
Guest Editor, MDPI Diversity Special Issue: Diversity of Marine Algae	2025 – 2026
External Manuscript Reviewer, Journals: PeerJ, Journal of Phycology	2025 – 2026
Organizing Committee Member, East-West Center International Graduate Student Conference (IGSC)	2019, 2022
Deputy President, University of San Carlos Biology Integrated Organization	2016
Executive Committee Member, Student Alliance for National Democracy	2015
Regional Coordinator, Let's Do It Philippines	2014
Co-founder & President, LUNHAW (grassroots organization)	2013
President, University of San Jose–Recoletos Josenian Science Club	
Creative Director, University of San Jose–Recoletos Josenian OAR Magazine	

Awards

<i>Major Awards</i>	
NSF-funded masteral and doctoral fellowship, University of Hawai'i at Mānoa (~\$85,000)	2018 – 2024
Southeast Asia Youth Leadership Program Fellow, U.S. Department of State (~\$30,000)	2013
<i>Small grants</i>	
Graduate Achievement Scholarship, University of Hawai'i at Mānoa (\$4,000)	2019 – 2024
Phycological Society of America Hoshaw Travel Award (\$ 2,500)	2019 – 2024
Phycological Society of America Grants-in-Aid (\$2,000)	2021
Lani Stemmerman Fellowship Fund, University of Hawai'i at Mānoa (\$5,000)	
Harold and Elizabeth St. John Scholarship, University of Hawai'i at Mānoa (\$1,500)	
Torrey-Degener Rock Scholarship Endowed Fund, University of Hawai'i at Mānoa (\$900)	
National Young Leaders Conference, San Miguel, Iloilo (\$200)	2018
Travel Award, Federation of Institutions for Marine and Freshwater Science (\$500)	2015 – 2016

Affiliations

Ocean Census Network, UHM Ecology, Evolution and Conservation Biology (EECB), Phycological Society of America (PSA), Botanical Society of America (BSA), East-West Center Alumni (EWCPA), Federation of Institutions for Marine and Freshwater Sciences (FIMFS)