

# Catie S. Cleveland

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## Education

**California Polytechnic State University:** Bachelor of Science, Marine Science (2017-2021).

**University of Southern California:** Doctor of Philosophy, Biology (2021-Present).

## Grade Point Average(s)

**Undergraduate Cumulative:** 3.5

**Graduate Cumulative:** 4.0

## Awards

- Outstanding Teaching Assistantship Award for “microbial course-based undergraduate research experience (mCURE)” honors biology course, University of Southern California, (2022)
- \*Del Core, A., \*Cleveland, C. (\*co-presenters), Lema, S., “First Place Best Poster,” Cal-Neva American Fisheries Society (AFS) Meeting, (2021).
- \*Del Core, A., \*Cleveland, C. (\*co-presenters), Lema, S., “Katrina Martens Student Poster Award”, Cal-Neva American Fisheries Society (AFS) Meeting, (2021).
- “Charlotte Mangum Student Support Award,” Society for Integrative & Comparative Biology (SICB), (2021).
- Frost Fund SURP Fellowship, California Polytechnic State University, San Luis Obispo, (2020)
- Dean’s List, California Polytechnic State University, San Luis Obispo College of Science and Math
- President’s List, California Polytechnic State University, San Luis Obispo
- Green and Gold Scholarship, California Polytechnic State University, San Luis Obispo, (2017)
- The Harvey L. Foster Foundation (HLFF) for Science Education Scholarship, (2017)

## Field Work

Cumulative Days Spent at Sea: 38

Bermuda Atlantic Time-Series (BATS) Cruise, R/V Atlantic Explorer (June 2022)

Bermuda Atlantic Time-Series (BATS) Cruise, R/V Atlantic Explorer (August 2022)

Bermuda Atlantic Time-Series (BATS) Cruise, R/V Atlantic Explorer (September 2022)

Bermuda Atlantic Time-Series Validation Cruise (BVAL), R/V Atlantic Explorer (June 2023)

Bermuda Atlantic Time-Series (BATS) Cruise, R/V Atlantic Explorer (September 2023)

## Mentorship

**Undergraduate researcher, Adam Wadhwani (2022-2024)**

**Undergraduate researcher, Nicolette Lee (2022-2023)**

## Positions

**Graduate Research Assistant:** University of Southern California

Advisor: Dr. Eric Webb: eawebb@usc.edu, (2021-present).

**Teaching Assistant:** “Microbial course-based undergraduate research experiences (mCURE) honors biology” course, University of Southern California, Reference: Cameron Thrash: (thrash@usc.edu), (2021).

**Frost Fund Fellow: climate change biology:** California Polytechnic State University, Advisor: Dr. Sean Lema: slema@calpoly.edu, (2020).

**Teaching Assistant:** “Communicating Ocean Science to Informal Audiences” course, California Polytechnic State University, San Luis Obispo, California, Reference: Nikki Adams: nadams@calpoly.edu, (2020).

**Environmental Organic Chemistry Laboratory Technician:** Environmental Analytical Service, San Luis Obispo, CA, Reference: Dr. Steve Hoyt: (805) 801-5660, stevehoyt@easlab.com (2019).

**Undergraduate Research Assistant: rockfish physiology and endocrinology:** California Polytechnic State University, Advisor: Dr. Sean Lema: slema@calpoly.edu, (2018-2020).

**Undergraduate Research Assistant: plankton ecology and deep-sea microbiology:** California Polytechnic State University, Advisor: Dr. Alexis Pasulka: apasulka@calpoly.edu, (2020-2021).

### **Publications**

Lanclos, V.C., Feng, X., Cheng, C., Yang, M., Hider, C.J., Coelho, J.T., Kojima, C.Y., Barnes, S.J., **Cleveland, C.**, Xie, M., Zhao, Y., Luo, H., Thrash, J. C. (2024). New isolates refine the ecophysiology of the Roseobacter CHAB-I-5 lineage. *bioRxiv*, pp.2024-05. **In review.**

**Cleveland, C. S.**, Turk-Kubo, K. A., Zhao, Y., Zehr, J. P., & Webb, E. A. (2023). A novel, N<sub>2</sub>-fixing cyanobacterium present and active in the global oceans. *bioRxiv*, 2023-08. **In revision.**

Lanclos, V. C., Coelho, J. T., **Cleveland, C. S.**, Hyer, A. J., McCallum, M. C., Savoie, E. R., Kosiba, S., Thrash, J. C. (2022). A CURE for physiological characterization of bacterioplankton in liquid culture. *Journal of Microbiology & Biology Education*, 23(2), e00068-22.

Del Core, A. A., **Cleveland, C. S.**, & Lema, S. C. (2021). Complete mitochondrial genome of the Salt Creek pupfish, *Cyprinodon salinus salinus*: characterization and identification of single nucleotide polymorphisms (SNPs). *Mitochondrial DNA Part B*, 6(8), 2229-2232.

### **Contributed Presentations** - \*indicates co-presenters

**Cleveland, C. S.**, Turk-Kubo, K. A., Zhao, Y., Zehr, J. P., & Webb, E. A. (2024). A novel, N<sub>2</sub>-fixing cyanobacterium present and active in the global oceans. In 2024 Ocean Sciences Meeting. AGU.

Bhatnagar, A. M., **Cleveland, C.**, Barnes, S. J., Weiss, A., Longnecker, K., Thrash, J. C., ... & Webb, E. A. (2024). Conserved Biogeography of Trichodesmium-associated Heterotrophs in the Oceans. In 2024 Ocean Sciences Meeting. AGU.

Knapp, A. N., Boiteau, R., Barnard, S., Buck, K. N., Caprara, S., Chappell, P. D., **Cleveland, C.**, ... & Webb, E. A. (2024). Sources and cycling of dissolved organic nitrogen and dissolved organic phosphorus on the West Florida Shelf. In 2024 Ocean Sciences Meeting. AGU.

Barnes, S. J., **Cleveland, C.**, Bhatnagar, A. M., Thrash, C. C., & Webb, E. A. (2024). Isolation of Unialgal N<sub>2</sub>-fixing Trichodesmium Using Dilution-to-Extinction Cultivation Techniques. In 2024 Ocean Sciences Meeting. AGU.

Zhao, Y., **Cleveland, C.**, Bhatnagar, A. M., Binkowski, M. R., & Webb, E. A. (2024). Sub-clade Level Trichodesmium Biogeographical Distribution and Unique Genetic Features Revealed by Multi-omic's Technologies. In 2024 Ocean Sciences Meeting. AGU.

**Cleveland, C. S.\***, Del Core\*, A. A., & Lema, S. C. Phenotypic impacts of warming environments: Morphological differentiation in a Death Valley pupfish parallels plastic developmental response to high temperature. In 2021 Integrative and Comparative Biology.

- Served as Assistant Session Chair for session 106 "Symbiosis and Immunity" (2021).

Del Core, A.A.\* , **Cleveland, C.S.\***, Lema, S. C. (2021). Warming waters and smaller fish: Assessing how temperature impacts body size and shape in a population of Amargosa pupfish. In 55th Annual Cal-Neva Chapter AFS Meeting.