

## ALLISON N. CRAMER

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### POSITIONS

**Assistant Professor Marine Biology** **August 16 – Current**

School of Mathematical and Natural Sciences, Arizona State University

**National Science Foundation Postdoctoral Fellow** **December 2021 – March 2023**

University of Washington Friday Harbor Labs, in collaboration with  
California State University Monterey Bay & USGS Pacific Coastal and Marine Science Center

**Postdoctoral Researcher** **July 2020 – April 2022**

University of California Santa Cruz, NOAA Southwest Fisheries Science Center Fisheries Ecology Division

### EDUCATION

*Washington State University – Pullman, WA*

**Ph.D. in Environmental and Natural Resource Science** **January 2015 – May 2020**

Dissertation: *"Problems in Data Synthesis: Towards a Dynamic Understanding of Marine Habitat Use"*

*California State University Monterey Bay – Seaside, CA*

**M.S. in Applied Marine and Watershed Science** **August 2011 – December 2015**

Thesis: *"Marine Fish Site Fidelity: Broad Scale Patterns across Species and Geographies"*

*University of Oregon – Eugene, OR*

**B.A. Honors in Biology, Minor in French** **September 2005 – June 2010**

Emphasis in Ecology & Evolution, Marine Biology

Honors Thesis: *"The Role of Beaver (Castor canadensis) in Salmon Management: A Literature Review and Test of Method."*

*Université catholique de l'Ouest – Angers, France*

**French Coursework towards Minor** **May – July 2007**

### PUBLICATIONS

#### *Research articles*

Meyer, Michael F., Salvatore G.P. Viridis, Xiao Yang, Matthew R. Brousil, Ryan P. McClure, Sapna Sharma, R. Iestyn Woolway, **Alli N. Cramer**, Jianning Ren, Stephen L. Katz, Stephanie E. Hampton, Haoran Shi.  
In review. *"The extended Global Lake area, Climate, and Population (GLCP) dataset: Extending the GLCP to include ice, snow, and radiation-related climate variables."* L&O Letters.

**Cramer, Alli N.**, Peter N. Dudley, Ethan A. Mora. In NOAA internal review. *"Timing and response of spawning Green Sturgeon to environmental conditions"*. Intended for Canadian Journal of Fisheries & Aquatic Sciences.

**Cramer, Alli N.** & Hoey, Jennifer A., Dolan, Tara E., Gatins, Remy, Toy, Jason A., Chancellor, Jordan L., Palkovacs, Eric P., Garza, John Carlos, Beltran, Roxanne S. 2023. *"A unifying framework for understanding ecological & evolutionary population connectivity."* Frontiers in Ecology and Evolution.

**Cramer, Alli N.** & Urmy, Sam S., Rogers, Tanya L., Sullivan-Stack, Jenna, Schmidt, Marian, Stewart, Simon D., Symons, Celia C. 2022. *"When are bacteria really gazelles? Comparing patchy ecologies with dimensionless numbers."* Ecology Letters. (co-first author, citation: Urmy et al 2022)

**Cramer, Alli N.**, Steve Katz, Clark Kogan, James Lindholm. 2021. *"Distinguishing residency behavior from random movements using passive acoustic telemetry."* Marine Ecology Progress Series.

Quintana, Anastasia C., Alfredo Giron-Nava, Samuel Urmy, **Alli N. Cramer**, Santiago Dominguez-Sánchez, Salvador Rodriguez-Van Dyck, Octavio Aburto-Oropeza, Xavier Basurto, Amy H. Weaver. 2021. *"Positive social-ecological feedbacks in community-based conservation."* Frontiers in Marine Science.

Meyer, Michael F., Matthew R. Brousil, **Alli N. Cramer**, Brian P. Lanouette, Julie C. Padowski, Stephanie E. Hampton. 2020. *"The global lake area, climate, and population (GLCP) dataset: a new tool for addressing critical limnological questions."* Limnology and Oceanography Bulletin.

**Cramer, Alli N.**, Stephen L. Katz. 2020. *"Primary Production and Habitat Stability Organize Marine Communities."* Global Ecology and Biogeography.

Labou, Stephanie G., Michael F. Meyer, Matthew Brousil, **Alli N. Cramer**, Brad T. Luff. 2020. *"Global Lake Area, Climate, and Population (GLCP) Dataset."* Data product. Environmental Data Initiative.

Meyer, Michael F., Stephanie G. Labou, **Alli N. Cramer**, Mathew Brousil, Brad T. Luff. 2020. *"Global Lake Area, Climate, and Population (GLCP) Dataset"*. Scientific Data.

Auster, Peter, James Lindholm, Jose Pereira, Sara Fangman, Heather Bolton, **Allison Cramer**, Lise Jensen, Jessica Moye. *"Preliminary results assessing movement patterns of select demersal piscivores at the sub-tropical reefs of Gray's Reef National Marine Sanctuary (Norwest Atlantic, Carolinian Province), 2008-2013."* In: Review of Scientific Research in and around the Designated Research Area of Gray's Reef National Marine Sanctuary (NW Atlantic). ONMS-20-08. P 98-115.

Lindholm, James, Mary Gleason, Donna Kline, Larissa Clary, Steve Rienecke, **Alli Cramer**, Marc Los Huertos. 2015. *"Ecological effects of bottom trawling on the structural attributes of fish habitat in unconsolidated sediments along the central California outer continental shelf."* Fishery Bulletin 113:82-96.

Lindholm, James, Ashley Knight, Flower Moye, **Alli N. Cramer**, Joshua Smith, Heather Bolton, Michael Esgro, Sarah Finstad, Rhiannon McCollough, Molly Fredle, Dirk Rosen, Andy Laueremann. 2015. *"South Coast Marine Protected Areas baseline characterization and monitoring of mid-depth rocky and soft-bottom ecosystems."* Final Report to CA Sea Grant #R/MPA-261.

Lindholm, James, **Alli N. Cramer**, Aimee M. Braddock. 2013. *"Distribution and abundance of selected corals and sponges in the Channel Islands National Marine Sanctuary as determined from ROV video imagery."* Final Report #NCND6022-12-02931

#### *Commentary*

**Cramer, Alli N.** 2022. *"Open data and the 21st-century naturalist."* Frontiers in Ecology and the Environment.

Michael F Meyer, Robert Ladwig, Jorrit Mesman, Isabella Oleksy, Carolina C Barbosa, Kaelin M Cawley, **Alli N Cramer**, Johannes Feldbauer, Patricia Q Tran, Jacob Aaron Zwart, Gregario A Lopez Moreira,

Muhammed Shikhani, Deviyani Gurung, Robert T Hensley, Elena Matta, Ryan P McClure, Thomas Petzoldt, Nuria Sanchez Lopez, Karline Soetaert, Mridul K Thomas, Simon Nemer Topp, Xiao Yang. 2021. "The AEMON-J 'Hacking Limnology' workshop series & virtual summit: Incorporating data science and open science in aquatic research." *Limnology and Oceanography Bulletin*.

Michael F Meyer, Matthew R Brousil, **Alli N Cramer**, Brian P Lanouette, Julie C Padowski, Stephanie E Hampton. 2020. "The Global Lake Area, Climate, and Population Dataset: A New Tool for Addressing Critical Limnological Questions" *Limnology and Oceanography Bulletin*.

**Cramer, Alli N.** 2020. "Scientists and the Art of Critique: Why We Should Train Scientists like Artists." *Limnology & Oceanography Bulletin*.

Farrell, Kaitlin J., **Alli N. Cramer**, Kelly L. Hondula, Seth K. Thompson, Jacob A. Zwart. 2019. "Support of Early-Career Researchers Supports the Future of ASLO." *Limnology & Oceanography Bulletin*.

#### CONFERENCE PRESENTATIONS

"A unifying framework for understanding ecological & evolutionary population connectivity"

**Cramer, Alli N.**

Poster Presentation. Eco Soc. America Meeting. **2023**

"Does disturbance to underlying substrate structure rocky intertidal communities?"

**Cramer, Alli N.**

Oral Presentation. Western Soc. of Naturalists. **2022**

"Pairing tagging data to biophysical models"

**Cramer, Alli N.**

Oral Presentation. DSOS Aquatic Research. **2021**

"Modelling Green Sturgeon (*Acipenser medirostris*) spawning via environmental conditions"

**Cramer, Alli N.**

Poster Presentation. Bay-Delta Sci. Conference. **2021**

"What is the site fidelity of a dead fish? And how would you prove it?"

**Cramer, Alli N.,** Steve Katz.

Poster Presentation. Ocean Sciences. **2020**

"Quantifying changes in global lake surface area of 20 years (1995-2015) in relation to climate and human population"

**Cramer, Alli N.** Michael F. Meyer, Stephanie G. Labou.

Oral Presentation. AGU Fall Meeting. **2018**

#### SELECTED SEMINAR PRESENTATIONS

"Are there universal drivers across marine biomes? Classifying and centering ecosystem processes to understand marine communities"

Science Seminar Series

**2022**

Pacific Coastal and Marine Science Center

"Distinguishing residency behavior from random movements using passive acoustic telemetry"

Data/theory seminar

**2020**

Southwest Fisheries Science Center, NOAA

"Running R and Python on an HPC"

Presentation and workshop facilitator

**2018**

CEREO and CIRC, Washington State University

*“Deep Data: Modeling Shark Movements”*

Presentation. CIRC Seminar Series. **2018**  
Washington State University

## FUNDING

### *Awarded*

NSF Ocean Sciences Postdoctoral Research Fellowship, # 2126729 **2021-Current**  
*Understanding substrate mobility as a disturbance in hard rock marine communities* **\$319,295**

RCN Working Group *Do spatial and genomic estimates of connectivity agree?* (co-lead) **2021-Current**  
**\$10,000**

## AWARDS & AFFILIATIONS

American Geophysical Union LANDInG Fellow **2021-Current**  
*AGU Leadership Academy & Network for Diversity and Inclusion in the Geosciences 2022 cohort*

Research Coordinated Network for Evolution in Changing Seas **2019-Current**

Incorporating Data Science and Open Science in Aquatic Research, Organizer **2021 - Current**

Francis Rush Bradley Excellence Fund **2019**

Ecological Dissertations in the Aquatic Sciences XIII (EcoDAS) **2018**

Robert Lane Fellowship in Environmental Sciences **2017**

## RESEARCH EXPERIENCE

*University of Washington Friday Harbor Laboratories and California State University Monterey Bay*

**National Science Foundation Ocean Sciences Postdoctoral Fellow** **2021-present**

Postdoctoral Fellowship (#2126729) investigating the role of substrate mobility in structuring marine hard rock communities. Collaboration between University of Washington, California State University Monterey Bay, and USGS Pacific Coastal and Marine Science Center.

*Fisheries Ecology Division, NOAA Southwest Fisheries Science Center, University of California – Santa Cruz*

**Postdoctoral Scholar – University of California Santa Cruz** **2020-2022**

Joint appointment to UCSC and NOAA SWFSC through the Institute of Marine Science. Investigating the occurrence of breeding Green Sturgeon (*Acipenser medirostris*) within the Sacramento River in relation to environmental variables and year to year change.

*Katz Lab, Washington State University, Pullman WA*

**Graduate Research Assistant – Washington State University** **2015 – 2020**

Investigated limitations and application of technology in marine ecology, focused on ecological implications and evolutionary constraints of fish movements using data mining and informatics.

*Center for Sustaining Agriculture and Natural Resources, Washington State University, Pullman WA*

**Graduate Research Assistant – Washington State University** **2017 – 2018**

Refined, streamlined, and supplemented interactive climate change and agriculture web application. Reformatted data structure and algorithms in R Statistical.

*Institute for Applied Marine Ecology, CSU Monterey Bay, Seaside, CA*

**Research Assistant – MPA Monitoring Enterprise: South Coast** 2012 – 2014

Sampled video imagery to collect community assemblage data on rockfish and key invertebrates. Assisted with ROV deployment and equipment maintenance in the field. Contributed to final report.

**Research Lead – Channel Islands NMS Corals Survey** 2013

Developed sampling protocol to survey large corals and sponges from ROV video imagery. Managed and mentored undergraduate researcher in project execution. Authored final report for the sanctuary.

*Science Diving, CSU Monterey Bay, Seaside, CA*

**Diving Assistant – Native Crab predation on Invasive Tunicate** 2013

Safety diver and data collection assistant for season long monitoring project of invasive tunicate.

**Diving Assistant – Science Diving Course** 2012 – 2014

Instructed students on sampling techniques and field methods. Monitored students in diving skills.

#### ADDITIONAL EXPERIENCE

*Diversity, Equity, & Inclusion Committee, Friday Harbor Laboratories*

**Committee Chair** 2023-Current

Coordinate and prioritize DEI initiatives at Friday Harbor Laboratories (FHL). Initiatives include efforts to 1) maintain and advance working relationship between FHL and the Coast Salish peoples, 2) improve mental health access at the marine laboratory, 3) spearhead undergraduate and professional scientist mentor program on campus, and 4) improve accessibility of the marine lab.

*R Working Group, Washington State University*

**Founder and Lead Educator** 2016 – 2018

Founded, facilitated, and presented in multi-institution, cross departmental working group focused on applying R statistical. Connected research community of R users spanning graduate students, postdocs, and faculty. Selected speakers and topics relevant to user interests. [cereo.wsu.edu/r-working-group/](http://cereo.wsu.edu/r-working-group/). The working group continues to support the local R community after transferring to new leadership.

*Sustainability & the Environment Committee, Washington State University*

**Graduate Student Representative** 2015 – 2016

Coordinated with multi-departmental and facilities representatives to dispense funds for student lead projects related to sustainability and environmental initiatives.

#### SELECTED TEACHING EXPERIENCE

*School of the Environment, Washington State University, Pullman, WA*

**Teaching Assistant – to Prof. Steve Katz & Prof. Jeff Vervoort in “Oceanography 230”** 2015 – 2019

Designed curricula, lectured, designed projects and exams. Graded quizzes, exams, and papers.

*California State University Monterey Bay, Seaside, CA*

**Teaching Assistant – to Prof. James Lindholm in “Advanced Marine Science & Policy”** 2013, 2014

Assisted in teaching, graded quizzes, exams, and papers.

**Teaching Assistant – to Prof. James Lindholm in “Science Diving”** 2013, 2014

Assisted in teaching, graded quizzes, exams, and papers.

**Teaching Assistant – to Prof. James Lindholm in “Marine Fish Ecology”** 2013, 2014

Assisted in teaching, graded quizzes, exams, and papers.

**Teaching Assistant – to Prof. Gerick Bergsma in “Ecology 320”**

**2011**

Assisted in teaching, graded quizzes, exams, and papers. Developed assignments, final exam, and final project. Administered grades.

SKILLS AND CERTIFICATIONS

*Certifications*

AAUS Science Diver  
First Aid/CPR  
ESRI Geographic Information Systems

*Analytical and Programming Experience*

R statistical, Python, Stella  
Google Earth Engine  
High Performance Computing

LANGUAGES

English – Native Language

French – Speak fluently, read and write

MEMBERSHIPS

Association for the Sciences of Limnology  
and Oceanography  
Ecological Society of America  
American Geophysical Union  
Society for the Advancement of  
Chicanos/Hispanics and Native Americans  
in Science

National Society of Collegiate Scholars  
Oregon Marine Student Association  
University of Oregon Presidential Scholars  
Girl Scouts of America