

LAURINNE BALSTAD

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EDUCATION

- 2021-** University of California, Davis
Present *Population Biology Graduate Group*
MS 2023, PhD expected 2025
- 2021** St. Olaf College, Bachelor of Arts
Mathematics and Biology, Summa Cum Laude

PUBLICATIONS

Peer-reviewed publications:

- [1] **Balstad, Laurinne**, Fedewa, Erin, and Szuwalski, Cody. **2024**. Drivers of Bitter Crab Disease occurrence in Eastern Bering Sea snow crab (*Chionoecetes opilio*). *ICES Journal of Marine Science* 81(6), pp. 1073–1083.
- [2] **Balstad, Laurinne**, Binning, Sandra, Craft, Meggan, Zuk, Marlene, and Shaw, Allison. **2021**. Parasite intensity and the evolution of migratory behavior. *Ecology*, e03229–e03229.

Research manuscripts in preparation:

- [3] **Balstad, Laurinne**, Godwin, Sean, Krkosek, Martin, Lewis, Mark, and Baskett, Marissa. Discrete treatment of microparasite leads to evolutionary, ecological, and economic trade-offs.
- [4] **Balstad, Laurinne**, Godwin, Sean, Krkosek, Martin, Lewis, Mark, and Baskett, Marissa. Management strategies to mitigate the effect of production on sublethal virulence evolution in macroparasites.
- [5] Szuwalski, Cody, Alglave, Baptiste, **Balstad, Laurinne**, Olmos, Maxime, Punt, Andre, Richar, Jon, and Veron, Matthieu. Density dependent population processes slow but do not stop climate-induced collapses.

Conference reports and white papers:

- [6] **Balstad, Laurinne**, Sullivan, Jane, and Monnahan, Cole. **2024**. A Plain Language Guide to Model Validation in REMA. *White paper, North Pacific Fisheries Management Council*.
- [7] Pinsky, Malin, ... **Balstad, Laurinne**, ... [17 authors]. **2024**. Evolutionary Resilience for Kelp: Prospects and Challenges. *Workshop Report, Monterey Bay Aquarium, University of California, Santa Cruz*. doi: 10.6084/m9.figshare.26882734

GRANTS & FUNDING

- 2024** Jastro-Fields Small Grant: Assisted evolution approaches to managed genetic rescue in host-pathogen systems
University of California, \$3,000 for undergraduate researcher stipend

- 2023** Jastro-Fields Small Grant: Virulence evolution in macroparasites in response to human-induced selection: a case study from salmon aquaculture
University of California, \$2,775 for fieldwork and conference travel
- 2021- Present** Graduate Research Fellowship
National Science Foundation, \$144,000
- 2021- Present** Graduate Research Traineeship
National Science Foundation, Sustainable Oceans NRT \$34,000
- 2022** CBSM Conference Student Travel Award
\$1,000
- 2021- 2022** Dean's Distinguished Graduate Fellowship
University of California, \$27,000

PRESENTATIONS

- 2024** **Balstad, Laurinne** and Baskett, Marissa. When will evolutionary rescue reverse disease-induced population declines? Western Society of Naturalists.
- 2023** **Balstad, Laurinne** and Baskett, Marissa. Poster: Conserving sick populations: demographic or evolutionary rescue? Western Society of Naturalists.
- Balstad, Laurinne** and Szuwalski, Cody. Size and density-dependent incidence of BCD suggests cod predation more important than fishery for disease control. Alaska Marine Science Symposium.
- 2021** **Balstad, Laurinne** and Clifton, Sara. Modeling racial bias and homophily in professional hierarchies. SIAM Dynamical Systems.
- 2020** **Balstad, Laurinne**, Binning, Sandra, Craft, Meggan, Zuk, Marlene, and Shaw, Allison. Poster: Parasite intensity influences evolution of migratory behavior via migratory escape. Society of Mathematical Biology Annual Meeting.

WORKSHOPS

- 2024** Monterey Bay Aquarium, University of California, Santa Cruz
Evolutionary Resilience for Kelp: Prospects and Challenges
- 2022** CBMS Conference: Interface of Mathematical Biology and Linear Algebra
Applications of linear algebra to epidemiology and disease systems

TEACHING

- 2025** Anticipated: Co-instructor, Population Ecology
University of California, Davis

- 2024** Teaching Assistant, Population Ecology
University of California, Davis
Curriculum creation: Fisheries dynamics and management lab
- 2023** Teaching Assistant, Margine Ecosystem Research and Management
University of New Hampshire, Shoals Marine Laboratory
Guest lectures: Data Management; Ecosystem indicators: Bering Sea Bitter Crab Disease Case Study

OUTREACH & SERVICE

- 2024** Juneau Sea Week curriculum development: Modeling Science Bioenergetics for Grades 6-8
In collaboration with Alaska Fisheries Science Center, NOAA
Model Shinyapp, with lesson plan linked: https://lauriebalstad.shinyapps.io/SAL_GROW/
- 2022-
Present** UC Davis Ecology & Evolution Preview Program
Co-chair, Mentorship co-coordinator, Workshop presenter, Mentor
Program encourages students from underrepresented backgrounds to consider and apply to graduate school in Ecology & Evolution by making application process transparent
- 2021-
Present** Population Biology Student Diversity Committee
Member
University of California Davis