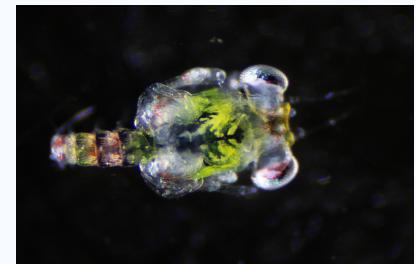


# DR. SAM BASHEVKIN

I am an environmental data scientist who excels at applying data science and statistical techniques to answer pressing ecological and management questions. Using open science practices, I create tested, time-saving tools for the community with every research question I address. I am passionate about applying my skills toward solving complex problems, and making the work of our partners easier while doing so.



## EDUCATION

2019  
|  
2014

### Ph.D., Ecology

University of California, Davis

📍 Davis, CA

- Dissertation: The Adaptive Arsenal of Crustacean Larvae Against Predatory and Environmental Stresses of the Plankton
- National Defense Science and Engineering Graduate Fellow
- Advisor: Steven Morgan

2017  
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2014

### M.S., Ecology

University of California, Davis

📍 Davis, CA

2014  
|  
2010

### B.S., Biology

Tufts University

📍 Medford, MA

- Thesis: Latent effects from low salinity stress and the interactive influence of temperature and salinity on larval and juvenile growth in the marine gastropod *Crepidula fornicata*.
- Summa Cum Laude, with Highest Thesis Honors

## RESEARCH EXPERIENCE

2019  
|  
2014

### Graduate Student Researcher

Bodega Marine Laboratory

📍 University of California, Davis

- Researched crab larval development and morphology in relation to environmental drivers.
- Led synthesis project on the predicted impacts of climate change on marine dispersal.
- Responsible for managing >25 technicians and volunteers.

2016  
|  
2015

### Graduate Research Fellow

Galeta Marine Laboratory

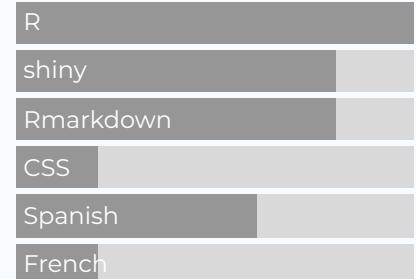
📍 Smithsonian Tropical Research Institute

- Led international expedition to research the countervailing influences of visual fish predation and ultraviolet radiation on the coloration of crab larvae

## CONTACT

- ✉️ [sbashevkin@gmail.com](mailto:sbashevkin@gmail.com)  
🐦 [SamBashevkin](#)  
👤 [sbashevkin](#)  
🔗 [NA](#)  
linkedin [sam-bashevkin](#)

## LANGUAGE SKILLS



Made with [pagedown](#).

Code at  
[github.com/sbashevkin/cv](https://github.com/sbashevkin/cv).

Last updated on 2022-06-06.

2014  
|  
2011

- **Undergraduate Researcher**  
Pechenik Laboratory  Tufts University
  - Led research on the desiccation, salinity, and temperature tolerance of juvenile and embryonic marine snails of the species *Crepidula fornicata* and *Crepidatella fecunda*.
- **NSF REU Undergraduate Researcher**  
Friday Harbor Marine Laboratory  University of Washington
  - Researched the effects of low salinity on the swimming behavior and protein expression of larval sand dollars (*Dendraster excentricus*) and sea stars (*Pisaster ochraceus*).

2013  
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2012

## INDUSTRY EXPERIENCE

2022  
|  
2019

- **Senior Environmental Scientist (Specialist)**  
Delta Science Program  Sacramento, CA
  - Lead synthesis, data science, and data publication projects with interagency teams to increase our understanding of Delta ecology through transparent data practices and lend expertise to interagency colleagues.
  - Develop strategic plan for advancing the synthesis capacity of the Delta Science Program and lead cloud computing initiatives
  - Develop R packages, automated R markdown reports, and interactive R shiny applications.

## JOURNAL ARTICLES

2022

- **Long-term trends in seasonality and abundance of three key zooplankters in the upper San Francisco Estuary**  
in review
  - Bashevkin SM, Burdi CE, Hartman R, Barros A
- **Improving settlement success in abalone aquaculture: KCl induces stronger settlement than GABA or crustose coralline algae for red (*Haliotis rufescens*) and white (*H. sorenseni*) abalone**  
in review
  - Bashevkin SM, Frederick A, Hubbard EZ, Vines CA, Magaña K, Hutton SJ, Cherr GN, Aquilino KM
- **State of Bay-Delta Science: Introduction: Ecosystem services and disservices of Bay-Delta primary producers: how plant and algae affect ecosystems and respond to management of the estuary and watershed**  
in review
  - Larsen LG, Bashevkin SM, Christman M, Conrad JL, Dahm CN, Thompson J

## *R packages*

- [deltafish](#): Access to an integrated fish database
- [deltafish](#): Back-end integrated fish database
- [discretewq](#): Integrated discrete water quality database
- [zooper](#): Integrated zooplankton database
- [spacetools](#): Easy spatial tools
- [deltamapr](#): Spatial data for the Bay-Delta
- [deltareportr](#): Automated reporting for the Bay-Delta

I have peer-reviewed manuscripts for journals including Aquatic Invasions, Marine Ecology Progress Series, Journal of Crustacean Biology, Journal of Experimental Marine Biology and Ecology, Diversity and Distributions, and Climate Change Ecology.

- 2022
- **A framework for evaluating the effects of reduced spatial or temporal monitoring effort**  
San Francisco Estuary and Watershed Sciences (accepted)
    - Bashevkin SM
- 2022
- **Escape From the Heat: Thermal Stratification in a Well-Mixed Estuary and Implications for Fish Species Facing a Changing Climate**  
Hydrobiologia  doi: 10.1007/s10750-022-04886-w
    - Mahardja B, Bashevkin SM, Pien C, Nelson M, Davis B, Hartman R
- 2022
- **Warming in the upper San Francisco Estuary: Patterns of water temperature change from 5 decades of data**  
Limnology and Oceanography  doi: 10.1002/lo.12057
    - Bashevkin SM, Mahardja B, Brown LR
- 2022
- **Five decades (1972–2020) of zooplankton monitoring in the upper San Francisco Estuary**  
PLOS one  doi: 10.1371/journal.pone.0265402
    - Bashevkin, SM, Hartman R, Thomas M, Barros A, Burdi CE, Hennessy A, Tempel T, Kayfetz K
- 2022
- **Seasonally variable relationships between surface water temperature and inflow in the upper San Francisco Estuary**  
Limnology and Oceanography  doi: 10.1002/lo.12027
    - Bashevkin SM, Mahardja B
- 2022
- **Relative bias in catch among long-term fish monitoring surveys within the San Francisco Estuary**  
San Francisco Estuary and Watershed Sciences  doi: 10.15447/sfewws.2022v20iss1art3
    - Huntsman BM, Mahardja B, Bashevkin SM
- 2022
- **Governing ecological connectivity in cross-scale dependent systems**  
BioScience  doi: 10.1093/biosci/biab140
    - Keeley ATH, Fremier AK, Goertler PAL, Huber PR, Sturrock AM, Bashevkin SM., Barbaree BA, Grenier JL, Dilts TE, Gogol-Prokurat M, Colombano D, Bush EE, Laws A, Gallo JA, Kondolf M, Stahl AT
- 2021
- **Does a complex life cycle promote or constrain adaptation to environmental change? Genome-informed approaches and insights for characterizing selection across stages of a life cycle**  
Proceedings of the Royal Society B  doi: 10.1098/rspb.2021.2122
    - Albecker MA, Wilkins LGE, Krueger-Hadfield SA, Bashevkin SM, Hahn MW, Hare MP, Kindsvater HK, Sewell MA, Lotterhos KE, Reitzel AM

- 2021 ● **Food for Thought: Connecting Zooplankton Science to Management in the San Francisco Estuary**  
San Francisco Estuary and Watershed Sciences  
DOI: doi: 10.15447/sfews.2021v19iss3art1  
• Hartman RK, Bashevkin SM, Barros A, Burdi CE, Patel C, and Sommer T
- 2020 ● **Costs and compensation in zooplankton pigmentation**  
Oecologia  
DOI: doi: 10.1007/s00442-020-04648-2  
• Bashevkin SM, Christy JH, Morgan SG
- 2020 ● **Larval dispersal in a changing ocean with an emphasis on upwelling regions**  
Ecosphere  
DOI: doi: 10.1002/ecs2.3015  
• Bashevkin SM, Dibble CD, Dunn RP, Hollarsmith JA, Ng G, Satterthwaite EV, Morgan SG
- 2020 ● **Predation and Competition**  
in Anger K, Harzsch S, Thiel M, editors. *The Natural History of the Crustacea, Volume VII: Developmental Biology and Larval Ecology*  
DOI: doi: 10.1002/9781119108420.ch1  
• Bashevkin SM, Morgan SG
- 2020 ● **Adaptive specialization and constraint in morphological defences of planktonic larvae**  
Functional Ecology  
DOI: doi: 10.1111/1365-2435.13464  
• Bashevkin SM, Christy JH, Morgan SG
- 2019 ● **Photoprotective Benefits of Pigmentation in the Transparent Plankton Community: A Comparative Species Experimental Test**  
Ecology  
DOI: doi: 10.1002/ecy.2680  
• Bashevkin SM, Christy JH, Morgan SG
- 2017 ● **Growing safe: Acute size escape from desiccation in juvenile *Crepidatella peruviana* (Mollusca: Gastropoda)**  
Biological Bulletin  
DOI: doi: 10.1086/695539  
• Bashevkin SM, Chaparro OR, Mardones-Toledo DA, Cubillos VM, Pechenik JA
- 2016 ● **Prior exposure to low salinity affects the vertical distribution of *Pisaster ochraceus* (Echinodermata: Asteroidea) larvae in haloclines.**  
Marine Ecology Progress Series  
DOI: doi: 10.3354/meps11563  
• Bashevkin SM, Lee D, Driver P, Carrington E, George S

- 2015
- **The interactive influence of temperature and salinity on larval and juvenile growth in the marine gastropod *Crepidula fornicata* (L)**  
 Journal of Experimental Marine Biology and Ecology  
📍 doi: 10.1016/j.jembe.2015.05.004  
 • Bashevkin SM, Pechenik JA
- 2015
- **Desiccation tolerance and lifting behavior of adult and juvenile *Crepidula fornicata* (Gastropoda) from intertidal and subtidal populations.**  
 Marine Ecology Progress Series  
📍 doi: 10.3354/meps11284  
 • Diederich CM, Bashevkin SM, Chaparro OR, Pechenik JA

## ☰ OTHER PUBLICATIONS

- 2022
- **Fish abundance in the San Francisco Estuary (1959–2021), an integration of 9 monitoring surveys**  
 Environmental Data Initiative  
📍 doi: 10.6073/PASTA/0CDF7E5E954BE1798AB9BF4F23816E83  
 • Bashevkin SM, Gaeta JW, Nguyen TX, Mitchell L, Khanna S. 2022
- 2022
- **Six decades (1959–2020) of water quality in the upper San Francisco Estuary: an integrated database of 11 discrete monitoring surveys in the Sacramento San Joaquin Delta, Suisun Bay, and Suisun Marsh**  
 Environmental Data Initiative  
📍 doi: 10.6073/pasta/c9b3da65a8c89cbfa6fc28d26f938c22  
 • Bashevkin SM, Perry SE, Stumpner EB
- 2022
- **Interagency Ecological Program: Zooplankton abundance in the Upper San Francisco Estuary from 1972–2020, an integration of 5 long-term monitoring programs**  
 Environmental Data Initiative  
📍 doi: 10.6073/pasta/89dbadd9d9dbdfc804b160c81633db0d  
 • Bashevkin SM, Hartman R, Thomas M, Barros A, Burdi CE, Hennessy A, Tempel T, Kayfetz K
- 2021
- **ESSAY: The Pilot Long-Term Monitoring Review Effort**  
 Interagency Ecological Program Newsletter  
 • Gaeta JW, Culberson S, Bashevkin S
- 2021
- **An Online Seasonal Monitoring Report for Major Interagency Ecological Program Surveys**  
 Interagency Ecological Program Newsletter  
 • Hartman R, Rasmussen N, Mitchell L, Koohafkan M, Bosworth D, Saraceno J, DuBois J, Bashevkin S, Conrad L

*Shiny apps*

- Delta Science Program shiny apps homepage
- Integrated zooplankton dataset Shiny App
- San Francisco Estuary Monitoring Shiny App
- Discrete water temperature app

- 2021
- **Interagency Ecological Program Long-term Monitoring Element Review: Pilot approach and methods development (2020)**  
Interagency Ecological Program Technical Report 96
    - IEP Long-term Survey Review Team
- 2020
- **Zooplankton Integrated Dataset Metadata Report**  
Interagency Ecological Program Technical Report 93
    - Kayfetz K, Bashevkin SM, Thomas M, Hartman R, Burdi CE, Hennessy A, Tempel T, Barros A

## TEACHING EXPERIENCE

- 2018
- **Environmental Stress and Development in Marine Organisms**  
Bodega Marine Laboratory  Bodega Bay, CA
    - Served as TA for an upper-level undergraduate lab/field course in ecotoxicology.
    - Delivered lectures, prepared lab experiments, mentored students through independent research projects.
- 2017
- **Wetland Ecology**  
University of California, Davis  Davis, CA
    - Served as TA for an upper-level undergraduate course in wetland ecology
    - Led discussion sections, facilitate student learning, and grade
- 2014  
|  
2012
- **Introductory Biology Laboratory**  
Tufts University  Medford, MA
    - Prepare for and assist students in an introductory biology lab

## SELECTED PRESS (ABOUT)

- 2022
- **Science in Short: Daylighting Delta Data**  
Estuary News
    - Story of data science in San Francisco Estuary management, based off an interview with me.

## 🎙 SELECTED PRESENTATIONS

- 2022
  - **Water temperature-inflow relationships in the upper San Francisco Estuary**  
Talk  Interagency Ecological Program Workshop
    - Bashevkin SM, Mahardja B
- 2022
  - **Bayesian regression**  
Talk  Interagency Ecological Program Workshop
    - Bashevkin SM
- 2021
  - **Climate Change Signals in Water Temperatures in the Upper San Francisco Estuary**  
Talk  Bay-Delta Science Conference
    - Bashevkin SM, Mahardja B, Brown LR
- 2020
  - **Building an Integrated Dataset of Zooplankton Monitoring in the San Francisco Estuary**  
Poster  Interagency Ecological Program Workshop
    - Bashevkin S, Kayfetz K, Thomas M, Hartman R, Burdi C, Tempel T, Hennessy A, Barros A
  - **Dataset integration: from water to zooplankton to fish**  
Talk  Interagency Ecological Program Workshop
    - Stompe D, Bashevkin S, Pien C, Kruger A, Thomas M, Davis B
- 2018
  - **How to eat your cake and have it too: Compensatory behavioral responses to ultraviolet radiation and fish cues in crab larvae.**  
Talk  Western Society of Naturalists, Tacoma, WA
    - Bashevkin SM, Armbrust AS, Howard G, Gao X, Morgan SG
- 2017
  - **Orphaned babies in a perilous ocean: How do marine larvae survive a dangerous migration**  
Invited talk  Science Uncorked outreach seminar, Gourmet au Bay, Bodega Bay, CA
    - Bashevkin SM
  - **Predatory costs, behavioral compensation, and evolutionary correlation in larval pigmentation**  
Talk  Western Society of Naturalists, Pasadena, CA
    - Bashevkin SM, Christy JH, Morgan SG

- 2017
- **Paradox of pigmentation in the plankton: Trade-offs in larval coloration vary with sunniness and exposure to ultraviolet radiation**  
Talk International Larval Biology Symposium, Honolulu, HI
    - Bashevkin SM, Christy JH, Morgan SG
- 2016
- **Pigmentation in the plankton: Trade-offs in coloration for marine larvae**  
Talk Western Society of Naturalists, Monterey, CA
    - Bashevkin SM, Christy JH, Morgan SG
- 2015
- **Interactive effects of temperature and salinity on larval and juvenile growth in the marine gastropod *Crepidula fornicata***  
Poster The Society of Integrative and Comparative Biology, West Palm Beach, FL
    - Bashevkin SM, Pechenik JA
- 2014
- **The effects of fluctuating salinity on protein profiles in echinoderm larvae of *Dendraster excentricus* and *Pisaster ochraceus***  
Poster The Society of Integrative and Comparative Biology, Austin, TX
    - Bashevkin S, Wessel G, George SB
- 2013
- **The ups and downs of life in a halocline: The behavior of *Pisaster ochraceus* larvae after prior exposure to low salinity**  
Poster The Society of Integrative and Comparative Biology, San Francisco, CA
    - Bashevkin S, George SB
- 2013
- **Is the upward migration of *Pisaster ochraceus* larvae motivated by the presence of food at the halocline or the salinity they are acclimated to?**  
Poster The Society of Integrative and Comparative Biology, San Francisco, CA
    - Bashevkin S, Driver P, George SB

## PROFESSIONAL TRAININGS

- 2019
- **Google Earth Engine Training**  
University of California, Merced Sacramento, CA
    - Dr. Erin Hestir
- 2019
- **Reproducible Research Techniques for Synthesis**  
National Center for Ecological Analysis and Synthesis Santa Barbara, CA
- 2018
- **Story Circles Science Communication Training**  
Bodega Marine Laboratory Bodega Bay, CA
    - Dr. Randy Olson

- 2018
- **Structural Equations Modeling Workshop**  
Bodega Marine Laboratory  
• Dr. Jarrett Byrnes
- 2016
- **Science Communications Short Course**  
Bodega Marine Laboratory  
• Dr. Tessa Hill