Stanford



Robin Elahi

Advanced Lecturer, Oceans

Bio

BIO

I am an advanced lecturer at Stanford University's Hopkins Marine Station, where I teach courses in kelp forest ecology, statistics, and scientific computing. In general, I study drivers of spatial and temporal change in marine ecosystems. Ongoing and recent research projects include:

-examining the consequences of fisheries closures on fisher behavior

-understanding why some coral reefs fare better than their neighbors

-biodiversity and body size change, particularly in the context of recent human impacts

ACADEMIC APPOINTMENTS

- Advanced Lecturer, Oceans

LINKS

- Teaching and research: https://elahi.github.io/

Teaching

COURSES

2026-27

- Kelp Forest Ecology: OCEANS 185H, OCEANS 285H (Spr)
- Marine Data Science in Practice: OCEANS 174H, OCEANS 274H (Spr)
- Scientific Writing through Marine Research: OCEANS 247H, OCEANS 47H (Win)
- Topics in Scientific and Statistical Computing: OCEANS 200H (Win)
- Underwater Methods for Kelp Forest Ecology: OCEANS 186H, OCEANS 286H (Spr)

2025-26

- Between Pacific Tides: Invertebrate Zoology in Monterey Bay: OCEANS 161H, OCEANS 261H (Win)
- Environmental Change and Marine Biodiversity: OCEANS 125H, OCEANS 225H (Spr)
- Statistical Modeling: OCEANS 140H, OCEANS 240H (Win)

2024-25

- Between Pacific Tides: Invertebrate Zoology in Monterey Bay: OCEANS 161H, OCEANS 261H (Win)
- Environmental Change and Marine Biodiversity: OCEANS 125H, OCEANS 225H (Spr)
- Hopkins Marine Station Seminar: OCEANS 114H (Win)

- Hopkins Marine Station Seminar: OCEANS 214H (Win)
- Introduction to Research in Ecology and Ecological Physiology: OCEANS 47H (Spr)
- Kelp Forest Ecology: OCEANS 185H, OCEANS 285H (Sum)
- Statistical Modeling: OCEANS 140H, OCEANS 240H (Win)

2023-24

- Between Pacific Tides: Invertebrate Zoology in Monterey Bay: OCEANS 161H, OCEANS 261H (Win)
- Environmental Change and Marine Biodiversity: OCEANS 125H, OCEANS 225H (Spr)
- Hopkins Marine Station Seminar: OCEANS 114H (Win)
- Hopkins Marine Station Seminar: OCEANS 214H (Win)
- Kelp Forest Ecology: OCEANS 185H, OCEANS 285H (Sum)
- Topics in Scientific and Statistical Computing: OCEANS 200H (Win)

Publications

PUBLICATIONS

- **Sex-specific variation in species interactions matters in ecological communities.** *Trends in ecology & evolution*
  Gissi, E., Goodman, M. C., Elahi, R., McDevitt-Irwin, J. M., Arnoldi, N. S., Arafeh-Dalmau, N., Knight, C. J., Olguín-Jacobson, C., Palmisciano, M., Tillman, C. M., De Leo, G. A., Micheli, F.
  2024

- **Scale dependence of coral reef oases and their environmental correlates.** *Ecological applications : a publication of the Ecological Society of America*
  Elahi, R., Edmunds, P. J., Gates, R. D., Kuffner, I. B., Barnes, B. B., Chollett, I., Courtney, T. A., Guest, J. R., Lenz, E. A., Toth, L. T., Viehman, T. S., Williams, I. D.
  2022: e2651

- **Historical comparisons of body size are sensitive to data availability and ecological context.** *Ecology*
  Elahi, R., Miller, L. P., Litvin, S. Y.
  2020

- **A framework for identifying and characterising coral reef "oases" against a backdrop of degradation** *JOURNAL OF APPLIED ECOLOGY*
  Guest, J. R., Edmunds, P. J., Gates, R. D., Kuffner, I. B., Andersson, A. J., Barnes, B. B., Chollett, I., Courtney, T. A., Elahi, R., Gross, K., Lenz, E. A., Mitarai, S., Mumby, et al
  2018; 55 (6): 2865–75

- **Leveraging vessel traffic data and a temporary fishing closure to inform marine management** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
  Elahi, R., Ferretti, F., Bastari, A., Cerrano, C., Colloca, F., Kowalik, J., Ruckelshaus, M., Struck, A., Micheli, F.
  2018; 16 (8): 440–45

- **The Resilience of Marine Ecosystems to Climatic Disturbances** *BIOSCIENCE*
  O'Leary, J. K., Micheli, F., Airoldi, L., Boch, C., De Leo, G., Elahi, R., Ferretti, F., Graham, N. A., Litvin, S. Y., Low, N. H., Lummis, S., Nickols, K. J., Wong, et al
  2017; 67 (3): 208-220

- **Ocean warming and the demography of declines in coral body size** *MARINE ECOLOGY PROGRESS SERIES*
  Elahi, R., Sebens, K. P., De Leo, G. A.
  2016; 560: 147-158

- **Recent Trends in Local-Scale Marine Biodiversity Reflect Community Structure and Human Impacts** *CURRENT BIOLOGY*
  Elahi, R., O'Connor, M. I., Byrnes, J. E., Dunic, J., Eriksson, B. K., Hensel, M. J., Kearns, P. J.
  2015; 25 (14): 1938-1943

- **Recent changes in mussel beds following mass mortality of a keystone marine predator** *MARINE ECOLOGY PROGRESS SERIES*

Chapuis, M., McDevitt-Irwin, J. M., Palmisciano, M., Elahi, R., Detrait, A., Gorum, O., Vogel, C., Chui, E., Haupt, A., Micheli, F.
2026; 776: 21

- **Rapid Range Expansion of a Marine Ectotherm Reveals the Demographic and Ecological Consequences of Short-Term Variability in Seawater Temperature and Dissolved Oxygen** *AMERICAN NATURALIST*
  Burford, B. P., Wild, L. A., Schwarz, R., Chenoweth, E. M., Sreenivasan, A., Elahi, R., Carey, N., Hoving, H. T., Straley, J. M., Denny, M. W.
  2022
- **Field stations as sentinels of change** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
  Micheli, F., Carlton, J., Pearse, J., Selgrath, J., Elahi, R., Watanabe, J., Mach, M., McDevitt-Irwin, J., Pearse, V., Burnett, N., Baxter, C.
  2020; 18 (6): 320–21
- **Mapping human pressures on biodiversity across the planet uncovers anthropogenic threat complexes** *PEOPLE AND NATURE*
  Bowler, D. E., Bjorkman, A. D., Dornelas, M., Myers-Smith, I. H., Navarro, L. M., Niamir, A., Supp, S. R., Waldock, C., Winter, M., Vellend, M., Blowes, S. A., Bohning-Gaese, K., Bruelheide, et al
  2020; 2 (2): 380-394
- **Disturbances drive changes in coral community assemblages and coral calcification capacity** *ECOSPHERE*
  Courtney, T. A., Barnes, B. B., Chollett, I., Elahi, R., Gross, K., Guest, J. R., Kuffner, I. B., Lenz, E. A., Nelson, H. R., Rogers, C. S., Toth, L. T., Andersson, A. J.
  2020; 11 (4)
- **Species richness change across spatial scales** *OIKOS*
  Chase, J. M., McGill, B. J., Thompson, P. L., Antao, L. H., Bates, A. E., Blowes, S. A., Dornelas, M., Gonzalez, A., Magurran, A. E., Supp, S. R., Winter, M., Bjorkman, A. D., Bruelheide, et al
  2019; 128 (8): 1079–91
- **Recent Trends in Local-Scale Marine Biodiversity Reflect Community Structure and Human Impacts.** *Current biology : CB*
  Elahi, R., O'Connor, M. I., Byrnes, J. E., Dunic, J., Eriksson, B. K., Hensel, M. J., Kearns, P. J.
  2015; 25 (14): 1938-43