

Stanford



Robin Elahi

Lecturer
Hopkins Marine Station

Bio

BIO

I am a 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

I also lead an NSF-funded Research Coordination Network in Undergraduate Biology Education focused on unifying curriculum across marine stations, with the goal of diversifying participation in marine ecology.

ACADEMIC APPOINTMENTS

- Lecturer, Hopkins Marine Station

LINKS

- Teaching and research: <https://elahi.github.io/>
- DIMES research coordination network: <https://sites.google.com/stanford.edu/dimes-rcn-ube/home>

Teaching

COURSES

2023-24

- Between Pacific Tides: Invertebrate Zoology in Monterey Bay: OCEANS 161H, OCEANS 261H (Win)
- Environmental Change and Marine Biodiversity: OCEANS 125H (Spr)
- Experimental Design and Probability: OCEANS 174H, OCEANS 274H (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)

2022-23

- Between Pacific Tides: Invertebrate Zoology in Monterey Bay: BIOHOPK 161H, BIOHOPK 261H (Win)

- Ecology and Conservation of Kelp Forest Communities: BIOHOPK 185H, BIOHOPK 285H (Sum)
- Environmental Change and Marine Biodiversity: BIO 125, BIOHOPK 125H, BIOHOPK 225H, OCEANS 125, OCEANS 225 (Spr)
- Hopkins Marine Station Seminar: BIOHOPK 114H (Win)
- Hopkins Marine Station Seminar: BIOHOPK 214H (Win)
- Hopkins Marine Station Seminar: OCEANS 114 (Win)
- Introduction to Research in Ecology and Ecological Physiology: BIOHOPK 47H, OCEANS 47 (Spr)
- Topics in Scientific and Statistical Computing: BIOHOPK 200H (Win)

2021-22

- Ecology and Conservation of Kelp Forest Communities: BIOHOPK 185H, BIOHOPK 285H (Sum)
- Experimental Design and Probability: BIOHOPK 174H, BIOHOPK 274H (Spr)
- Historical Ecology at Hopkins Marine Station: BIO 166, BIO 266, BIOHOPK 166H, BIOHOPK 266H (Win)
- Introduction to Research in Ecology and Ecological Physiology: BIOHOPK 47H (Spr)
- People and Nature of Monterey Bay: BIOHOPK 119H, BIOHOPK 219H (Spr)

2020-21

- Introduction to Research in Ecology and Ecological Physiology: BIOHOPK 47 (Sum)
- Invertebrate Zoology: BIOHOPK 161H, BIOHOPK 261H (Spr)
- Statistical Modeling: BIOHOPK 240H, OCEANS 140 (Win)

Publications

PUBLICATIONS

- **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
- **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)
- **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., Airoidi, 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
- **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
- **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