

Michael G. Jacox

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EDUCATION

- 2012** Ph.D. Ocean Sciences, University of California - Santa Cruz
2005 B.S. Aerospace Engineering, Applied Mathematics Minor,
University of Colorado - Boulder

PROFESSIONAL EXPERIENCE

- 2017 –** Research Oceanographer, NOAA Southwest Fisheries Science Center, Monterey, CA and
NOAA Physical Sciences Laboratory, Boulder, CO
2024 – Research Associate, University of California, Santa Cruz, CA
2014 – 2024 Assistant Project Scientist, University of California, Santa Cruz, CA
2012 – 2014 Post-doctoral Researcher, University of California, Santa Cruz, CA
2009 – 2012 Graduate Student Researcher, University of California, Santa Cruz, CA
2005 – 2009 Systems Engineer, Atmospheric Observing Systems, Inc., Boulder, CO

AWARDS

- 2021** Employee of the Year, NOAA Southwest Fisheries Science Center
2021 U.S. Department of Commerce Bronze Medal
For major advances in linking environmental variability to groundfish recruitment on the west coast
2019 US CLIVAR Early Career Climate Leadership Award
For outstanding contributions to interdisciplinary community activities to synthesize understanding of climate and marine ecosystem predictability
2017 Team Member of the Year, NOAA Southwest Fisheries Science Center
2014 Best Talk, Physical Oceanography and Climate Committee, PICES Annual Meeting

TEACHING

- 2015 – 2025** Instructor, Inquiry Institute, UCSC Institute for Scientist and Engineer Educators
2019 Guest Lecturer, ENSTU 309 – Science and Policy of Global Change, California State University Monterey Bay
2013 Guest Lecturer, METR/OCN 450 - Air-Sea Interactions, San Francisco State University
2011 Course Designer/Lead Instructor, Workshop for Engineering and Science Transfers, UCSC
2011 Teaching Assistant, OCEA80A - Life in the Sea, UCSC
2010 Course Designer/Instructor, Akamai Maui Short Course, Maui Community College (now UH Maui College), HI
2009 Course Designer/Instructor, Ocean Sciences Laboratory, UCSC Diversity Forum

SERVICE

2022 –	Co-lead, <i>NOAA Climate, Ecosystems and Fisheries Initiative (CEFI) West Coast Decision Support Team</i>
2022 –	Co-chair, <i>NOAA CEFI National Modeling Team</i>
2022 –	Member, <i>NOAA CEFI National Decision Support Team</i>
2022 –	Member, <i>NMFS-DFO Pacific Working Group</i>
2022 – 2024	Co-chair, <i>WMO Task Team on Climate Services and Fisheries</i>
2022	Member, Ecological Forecasting Partnership Team, <i>NSF-NOAA Bilateral Leadership Roundtable</i>
2021 – 2023	Author, Oceans and Marine Resources chapter, <i>Fifth National Climate Assessment</i>
2021	Program Committee Member, <i>Ocean Sciences Meeting 2022</i> , Honolulu, HI
2020 – 2024	Co-chair, <i>NOAA Marine Ecosystems Task Force</i>
2020 – 2022	Co-chair, <i>NOAA Climate and Fisheries Initiative Implementation Team</i>
2020 – 2021	Member, <i>NMFS West Coast Wind Energy Working Group</i>
2019 – 2020	Co-chair, <i>NOAA Climate and Fisheries Initiative Expert Team on Near Term Forecasting</i>
2019 – 2022	Member, <i>NOAA CMIP6 Task Force</i>
2017 – 2022	Co-chair, <i>PICES Working Group 40 – Climate and Ecosystem Predictability</i>
2017 – 2020	Co-chair, <i>NOAA Marine Prediction Task Force</i>
2018 – 2020	Member, <i>CLIVAR Research Focus Group on Eastern Boundary Upwelling Systems</i>
2019	Session co-chair, <i>PICES Annual Meeting</i> , Victoria, Canada.
2018	Session co-chair, <i>International Symposium on the Effects of Climate Change on the World's Oceans</i> , Washington D.C.
2018	Session co-chair, <i>Ocean Sciences Meeting</i> , Portland, OR.
2016	Conference co-chair, <i>Eastern Pacific Ocean Conference</i> , Mt. Hood, OR
2016	Session co-chair, <i>Ocean Sciences Meeting</i> , New Orleans, LA.
2015	Session co-chair, <i>Eastern Pacific Ocean Conference</i> , Fallen Leaf Lake, CA
Editing	Guest editor, <i>Frontiers in Marine Science</i> special collection “North Pacific climate and ecosystem predictability on seasonal to decadal timescales”.
	Guest editor, <i>Geophysical Research Letters</i> special issue “Advancing prediction of coastal marine ecosystems”.
Journal Reviewing	<i>Biogeosciences, Climate Dynamics, Climatic Change, Deep Sea Research Part II, Earth's Future, Elementa: Science of the Anthropocene, Environmental Science and Technology, Estuaries and Coasts, Geophysical Research Letters (5), Journal of Geophysical Research (10), Journal of Physical Oceanography, Nature (4), Nature Climate Change, Nature Communications (2), Nature Geoscience, Ocean Modelling, Ocean Science, Oceanography, PLOS ONE, Progress in Oceanography (4), Remote Sensing, Remote Sensing of Environment, Science Advances, Scientific Reports (2), Science of the Total Environment</i>
Proposal Reviewing	<i>National Science Foundation, Natural Environment Research Council (UK), Swiss National Supercomputing Center</i>

POSTDOCTORAL ADVISING

- 2022 – Allison Cluett (UCSC/SWFSC)
2021 Dillon Amaya (U Colorado/PSL)
2020 – 2023 Nathali Cordero Quiros (UCSC/SWFSC; co-advised with S. Bograd)
2019 – Tim Frawley (UCSC/SWFSC; co-advised with S. Bograd and E. Hazen)
2018 – Mercedes Pozo Buil (UCSC/SWFSC)
2018 – 2023 Stefan Koenigstein (UCSC/SWFSC)
2018 – 2022 James Smith (UCSC/SWFSC; co-advised with D. Tommasi)
2018 – 2019 Erin Satterthwaite (California Sea Grant; co-advised with S. Bograd and E. Hazen)
2018 – 2019 Jonathan Sweeney (UCSC/SWFSC; co-advised with S. Stohs)
2017 – 2022 Stephanie Brodie (UCSC/SWFSC; co-advised with S. Bograd and E. Hazen)
2016 – 2024 Heather Welch (UCSC/SWFSC; co-advised with S. Bograd and E. Hazen)

GRADUATE AND UNDERGRADUATE ADVISING

- 2024 – Dani Lafarga (UC San Diego)
2024 – Kaila Frazer (Smith College)
2022 Ellen Jorgensen (Syracuse)
2021 – 2022 Victoria Boatwright (Georgetown)
2021 Cristian Swift (U Washington)
2021 Julia McElhinny (Wake Forest)
2020 Elizabeth Saraf (U Rhode Island)

GRANTS RECEIVED

- 2025 – 2028 **M. Jacox**, M. Alexander, D. Amaya, S. Bograd, M. Pozo Buil, A. Cluett. Assessing the representation of predictive pathways in global models, regional models, and observations to support CEFI science and model development. *NOAA MAPP*. \$566,798 (*recommended for funding*).
- 2020 – 2023 **M. Jacox**, M. Alexander, J. Dias, D. Tommasi, M. Pozo Buil. Improving the utility of global climate forecasts for regional fisheries applications. *NOAA MAPP*. \$649,486.
- 2020 – 2023 M. Pozo Buil, **M. Jacox**, D. Tommasi, J. Fiechter, S. Bograd, R. Rykaczewski. Understanding the variability and projecting future changes of biogeochemistry in the California Current Upwelling System. *NOAA MAPP*. \$500,487.
- 2020 – 2023 M. Alexander, C. Deser, **M. Jacox**. Developing a process based understanding of marine heat waves: present and future. *NOAA CVP/MAPP*. \$459,147.
- 2020 – 2023 M. Pozo Buil, N. Lovenduski, E. Di Lorenzo, **M. Jacox**, S. Bograd, E. Hazen. Mechanisms of interannual- to decadal-scale predictability for ocean physics and biogeochemistry in the California Current System. *NOAA CVP*. \$851,263.
- 2020 – 2022 **M. Jacox**, B. Muhling, T. Frawley, S. Brodie, J. Smith, D. Tommasi, H. Welch, S. Bograd, E. Hazen, H. Dewar. Dynamic decision-support tools to counter IUU fishing for North Pacific albacore. *NOAA OLE*. \$508,648.
- 2019 – 2021 R. Rykaczewski, **M. Jacox**, M. Garcia-Reyes, B. Black, S. Bograd, W. Sydeman. Coupled climate stressors along the west coast of North America: Drought, marine heat waves, HABs, and hypoxia. *NOAA MAPP*. \$199,307.

- 2018 – 2021** M. Jacox, S. Bograd, C. Edwards, E. Hazen, A. Moore, C. Wilson. Assimilating NOAA VIIRS data into near-real-time ocean models to support fisheries applications off the US west coast. *NOAA JPSS*. \$422,292.
- 2018 – 2021** E. Hazen, M. Jacox, D. Robinson, C. Wilson, S. Bograd. Using VIIRS to operationalize dynamic EBFM tools on the U.S. East and West Coasts. *NOAA JPSS*. \$590,340.
- 2018 – 2021** C. Edwards, C. Anderson, E. Bayler, J. Fiechter, R. Kudela, A. Moore, E. Hazen, M. Jacox, A. Kurapov, P. MacCready, J. Newton, H. Ruhl. Advancing the West Coast Ocean Forecasting System through assessment, model development, and ecological products. *NOAA COMT*. \$899,108.
- 2018 – 2020** S. Parker-Stetter, D. Chu, S. Gauthier, C. Harvey, M. Hunsicker, M. Jacox, O. Shelton, R. Thomas, N. Tolimieri. Quantifying spatiotemporal distribution, abundance, and environmental drivers of euphausiids in the California Current Large Marine Ecosystem. *NOAA FATE*. \$170,000.
- 2017 – 2020** M. Jacox, M. Alexander, S. Bograd, E. Curchitser, C. Edwards, J. Fiechter, E. Hazen, A. Himes-Cornell, R. Rykaczewski, S. Stohs. From physics to fisheries: A social-ecological management strategy evaluation for the California Current Large Marine Ecosystem. *NOAA COCA*. \$1,991,674.
- 2017 – 2020** M. Jacox, M. Alexander, S. Bograd, C. Edwards, J. Fiechter, E. Hazen, S. Siedlecki. Downscaled seasonal forecasts for living marine resource management off the US west coast. *NOAA MAPP*. \$538,194.
- 2017 – 2020** E. Hazen, M. Jacox, S. Bograd. A fine-scale dynamic management tool to minimize whale ship strike risk in the northeast Pacific. *Benioff Ocean Initiative*. \$363,796.
- 2017 – 2018** S. Bograd, M. Jacox, C. Edwards. Biological ocean reanalyses for fisheries applications off the US West Coast. *NOAA CIO*. \$149,946.
- 2016 – 2017** H. Bailey, L. Crowder, S. Bograd, E. Hazen, D. Robinson, C. Wilson, M. Jacox, K. Scales, D. Briscoe. El Niño Watch revised - An improved index for reducing Loggerhead Turtle bycatch in the California Current. *NOAA BREP*. \$134,262
- 2011** M. Jacox. Dr. Earl Myers and Ethel Myers Oceanographic and Marine Biology Trust Research Grant. \$1,500.
- 2009** M. Jacox. Friends of Long Marine Lab Student Research Award. \$750.

JOURNAL ARTICLES ($n = 118$; 6400+ citations; h -index = 47)

118. Drenkard, E.J., C.A. Stock, A.C. Ross, Y.-C. Teng, T. Morrison, W. Cheng, A. Adcroft, E. Curchitser, R. Dussin, R. Hallberg, C. Hauri, K. Hedstrom, A. Hermann, M.G. Jacox, K.A. Kearney, R. Pages, D.J. Pilcher, M. Pozo Buil, V. Seelanki, and N. Zadeh (2025), A regional physical-biogeochemical ocean model for marine resource applications in the Northeast Pacific (MOM6-COBALT-NEP10k v1. 0), *Geoscientific Model Development Discussions*, in review, doi:10.5194/gmd-2024-195.
117. Muhling, B.A., J.P. Zwolinski, P.T. Kuriyama, T.D. Auth, R.D. Brodeur, S.P.A. Jiménez Rosenberg, G. Aceves-Medina, J.A.V. Gasti, M.G. Jacox, M. Pozo Buil, J. Fiechter, F.J. Quezada Escalona, and D. Tommasi (2025), Marine heatwaves and climate-driven warming impact availability of sardine subpopulations to Northeast Pacific fishing ports, *Fisheries Oceanography*, e12730, doi:10.1111/fog.12730.
116. Alexander, M.A., J.D. Scott, M.G. Jacox, D.J. Amaya, and L.M. Wilczynski (2025), Processes that influence bottom temperatures in the California Current System, *Journal of Geophysical Research – Oceans*, in press, doi:10.1029/2024JC021886.

115. Frawley, T., M. Provost, L. Bellquist, N. Ben-Aderet, H. Blondin, S. Brodie, M. Pozo Buil, **M. Jacox**, S.J. Bograd, E.L. Hazen, H. McGonigal, and K. Ramey (2025), A collaborative climate vulnerability assessment of California marine fishery species, *PLOS Climate*, 4(2): e0000574, doi:10.1371/journal.pclm.0000574.
114. Amaya, D.J., N. Maher, C. Deser, **M.G. Jacox**, M.A. Alexander, M. Newman, J. Dias, and J. Lou (2025), Linking projected changes in seasonal climate predictability and ENSO amplitude, *Journal of Climate*, 38, 675-688, doi:10.1175/JCLI-D-23-0648.1.
113. Mogen, S.C., N.S. Lovenduski, S.G. Yeager, A. Capotondi, **M.G. Jacox**, S. Bograd, E. Di Lorenzo, E.L. Hazen, M. Pozo Buil, W. Kim, and N. Rosenbloom (2024), Multi-month forecasts of marine heatwaves and ocean acidification extremes, *Nature Geoscience*, 17, 1261-1267, doi:10.138/s41561-024-01593-0.
112. Amaya, D.J., **M.G. Jacox**, M.A. Alexander, S.J. Bograd, and L. Jia (2024), Seasonal upwelling forecasts in the California Current System, *Geophysical Research Letters*, 51, e2024GL111083 5337-5353, doi:10.1029/2024GL111083.
111. Ward, E.J., S.C. Anderson, L.A.K. Barnett, P.A. English, H.M. Berger, C.J.C. Commander, T.E. Essington, C.J. Harvey, M.E. Hunsicker, **M.G. Jacox**, K.F. Johnson, S. Large, O.R. Liu, K.E. Richerson, J.F. Samhuri, S.A. Siedlecki, A.O. Shelton, K.A. Somers, and J.T. Watson (2024), Win, lose, or draw: Evaluating dynamical thermal niches of northeast Pacific groundfish, *PLOS Climate*, doi:10.1371/journal.pclm.0000454.
110. Cluett, A.A., **M.G. Jacox**, D.J. Amaya, M.A. Alexander, and J.D. Scott (2024), Atmospheric precursors of skillful SST prediction in the Northeast Pacific, *Journal of Climate*, 37 (20), 5337-5353, doi:10.1175/JCLI-D-24-0121.1.
109. **Jacox, M.G.**, D.J. Amaya, and M.A. Alexander (2024), Marine Heatwaves in 2023 [in “State of the Climate in 2023”], *Bulletin of the American Meteorological Society*, 105 (8), S167-168, doi:10.1175/BAMS-D-24-0100.1.
108. **Jacox, M.G.**, S.J. Bograd, J. Fiechter, M. Pozo Buil, M. Alexander, D. Amaya, N. Cordero Quiros, H. Ding, and R.R. Rykaczewski (2024), Linking upwelling dynamics and subsurface nutrients to projected productivity changes in the California Current System, *Geophysical Research Letters*, 51, e2023GL108096, doi:10.1029/2023GL108096..
107. Jorgensen, E.M., E.L. Hazen, **M.G. Jacox**, M. Pozo Buil, I. Schroeder, and S.J. Bograd (2024), Physical and biogeochemical phenology of coastal upwelling in the California Current System, *Geophysical Research Letters*, 51, e2024GL108194.
106. Deser, C., A.S. Phillips, M.A. Alexander, D.J. Amaya, A. Capotondi, **M.G. Jacox**, and J.D. Scott (2024), Future changes in the intensity and duration of marine heat and cold waves: Insights from coupled model initial-condition large ensembles, *Journal of Climate*, doi:10.1175/JCLI-D-23-0278.1.
105. Thompson, A.R., R. Swalethorp, M. Alksne, J.A. Santora, E.L. Hazen, A. Leising, E. Satterthwaite, W.J. Sydeman, C.R. Anderson, T.D. Auth, S. Baumann-Pickering, T. Baumgardner, E.P. Bjorkstedt, S.J. Bograd, N.M. Bowlin, B.J. Burke, E.A. Daly, H. Dewar, J.C. Field, J.L. Fisher, N. Garfield, A. Gidding, R. Goericke, R. Golightly, E. Gómez-Ocampo, J. Gomez-Valdes, J.A. Hildebrand, K.C. Jacobson, **M.G. Jacox**, J. Jahncke, M. Johns, J.M. Jones, B. Lavaniegos, N. Mantua, G.J. McChesney, M.E. Medina, S.R. Melin, L. Erasmo Miranda, C.A. Morgan, C.F. Nickels, R.A. Orben, J.M. Porquez, A. Preti, R.R. Robertson, D.L. Rudnick, K.M. Sakuma, C.R. Schacter, I.D. Schroeder, L. Scopel, O.E. Snodgrass, S.A. Thompson, P. Warzybok, K. Whitaker, W. Watson, E.D. Weber, and B. Wells (2024), State of the California Current Ecosystem report in 2022: a tale of two La Niñas, *Frontiers in Marine Science*, 11, doi:10.3389/fmars.2024.1294011.

104. Samhour, J.F., B.E. Feist, **M.G. Jacox**, O.R. Liu, K. Richerson, E. Steiner, J. Wallace, K. Andrews, L. Barnett, A.H. Beaudreau, L. Bellquist, M. Pozo Buil, M.A. Haltuch, A. Harley, C.J. Harvey, I.C. Kaplan, K. Norman, A. Phillips, L.K. Rasmuson, E.J. Ward, C. Whitmire, and R.L. Selden (2024), Stay or go? Geographic variation in risks due to climate change for fishing fleets that adapt in-place or adapt on-the-move, *PLOS Climate*, 3(2), e0000285, doi:10.1371/journal.pclm.0000285.
103. Lezama-Ochoa, N., S. Brodie, H. Welch, **M.G. Jacox**, M. Pozo Buil, J. Fiechter, M. Cimino, B. Muhling, H. Dewar, E.A. Becker, K.A. Forney, D. Costa, S.R. Benson, N. Farchadi, C. Braun, R. Lewison, S.J. Bograd, and E.L. Hazen (2024), Divergent responses of highly migratory species to climate change in the California Current, *Diversity and Distributions*, 30, e13800, doi:10.1111/ddi.13800.
102. Frawley, T.H., B. Muhling, S. Brodie, H. Blondin, H. Welch, M.G. Arostegui, S.J. Bograd, C.D. Braun, M.A. Cimino, N. Farchadi, E.L. Hazen, D. Tommasi, and **M.G. Jacox** (2024), Dynamic human, oceanographic, and ecological factors mediate transboundary fishing overlap across the Pacific high seas, *Fish and Fisheries*, 25, 60-81, doi:10.1111/faf.12791.
101. Hardy, N.A., C. Matuch, Z. Roote, I. George, B.A. Muhling, **M.G. Jacox**, E.L. Hazen, S.J. Bograd, L.B. Crowder, and S.J. Green (2023), Trait-based analyses reveal global patterns in diverse diets of albacore tuna (*Thunnus alalunga*), *Fish and Fisheries*, doi:10.1111/faf.12807.
100. Brodie, S., M. Pozo Buil, H. Welch, S.J. Bograd, E.L. Hazen, J.A. Santora, R. Seary, I.D. Schroeder, and **M.G. Jacox** (2023), Ecological forecasts for marine resource management during climate extremes, *Nature Communications*, 14, 7701, doi:10.1038/s41467-023-43188-0.
99. **Jacox, M.G.**, M. Pozo Buil, S. Brodie, M.A. Alexander, D.J. Amaya, S.J. Bograd, C.A. Edwards, J. Fiechter, E.L. Hazen, G. Hervieux, and D. Tommasi (2023), Downscaled seasonal forecasts for the California Current System: Skill assessment and prospects for living marine resource applications, *PLOS Climate*, 2(10), e0000245, doi:10.1371/journal.pclm.0000245.
98. Mogen, S., N.S. Lovenduski, S. Yeager, L. Keppler, J. Sharp, S.J. Bograd, N. Cordero Quiros, E. Di Lorenzo, E.L. Hazen, **M.G. Jacox**, and M. Pozo Buil (2023), Skillful multi-month predictions of ecosystem stressors in the surface and subsurface ocean, *Earth's Future*, 11, e2023EF003605, doi:10.1029/2023EF003605.
97. Pozo Buil, M., J. Fiechter, **M.G. Jacox**, S.J. Bograd, and M.A. Alexander (2023), Evaluation of different bias correction methods for dynamical downscaled future projections of the California Current upwelling system, *Earth and Space Science*, doi:10.1029/2023EA003121.
96. Shi, H., M. Pozo Buil, S.J. Bograd, M. García-Reyes, **M.G. Jacox**, B.A. Black, W.J. Sydeman, and R.R. Rykaczewski (2023), Future change of summer hypoxia in the coastal California Current, *Frontiers in Marine Science*, doi:10.3389/fmars.2023.1205536.
95. Welch, H., M.S. Savoca, S. Brodie, **M.G. Jacox**, B.A. Muhling, T.A. Clay, M.A. Cimino, S.R. Benson, B.A. Block, M.G. Conners, D.P. Costa, F.D. Jordan, A.W. Leising, C.S. Mikles, D.M. Palacios, S.A. Shaffer, L.H. Thorne, J.T. Watson, R.R. Holser, L. Dewitt, S.J. Bograd, and E.L. Hazen (2023), Impacts of marine heatwaves on top predator distributions are variable but predictable, *Nature Communications*, doi:10.1038/s41467-023-40849-y.
94. Liu, O.R., E.J. Ward, S.C. Anderson, K.S. Andrews, L.A.K. Barnett, S. Brodie, G. Carroll, J. Fiechter, M.A. Haltuch, C.J. Harvey, E.L. Hazen, P.-Y. Hervann, **M.G. Jacox**, I.C. Kaplan, S. Matson, K. Norman, M. Pozo Buil, R.L. Selden, A. Shelton, and J.F. Samhour (2023), Species redistribution creates unequal outcomes for multispecies fisheries under projected climate change, *Science Advances*, 9, 33, eadg5468, doi:10.1126/sciadv.adg5468.

93. Alexander, M.A., J.D. Scott, **M.G. Jacox**, C. Deser, D.J. Amaya, A. Capotondi, and A.S. Phillips (2023), A survey of coastal conditions around the continental US using a high-resolution ocean reanalysis, *Progress in Oceanography*, 216, 103055, doi:10.1016/j.pocean.2023.103055.
92. Vestfals, C.D., K.N. Marshall, N. Tolimieri, M.E. Hunsicker, A.M. Berger, I.G. Taylor, **M.G. Jacox**, and B.D. Turley (2023), Stage-specific drivers of Pacific hake (*Merluccius productus*) recruitment in the California Current Ecosystem, *Fisheries Oceanography*, doi:10.1111/fog.12634.
91. Raghukumar, K., T. Nelson, **M.G. Jacox**, C. Chartrand, J. Fiechter, G. Chang, L. Cheung, and J. Roberts (2023), Projected cross-shore changes in upwelling induced by offshore wind farm development along the California coast, *Communications Earth & Environment*, 4, 116, doi:10.17882/94046.
90. Amaya, D.G., **M.G. Jacox**, M.R. Fewings, V.S. Saba, M.F. Stuecker, R.R. Rykaczewski, A.C. Ross, C.A. Stock, A. Capotondi, C.M. Petrik, S.J. Bograd, M.A. Alexander, W. Cheng, A.J. Hermann, K.A. Kearney, and B.S. Powell (2023), Marine heatwaves need clear definitions so coastal communities can adapt, *Nature*, 616, 29-32, doi:10.1038/d41586-023-00924-2.
89. Amaya, D.G., **M.G. Jacox**, M.A. Alexander, J.D. Scott, C. Deser, A. Capotondi, and A. Phillips (2023), Bottom marine heatwaves along the continental shelves of North America, *Nature Communications*, 14, 1038, doi:10.1038/s41467-023-36567-0.
88. Smith, J.A., M. Pozo Buil, B. Muhling, D. Tommasi, S. Brodie, T.H. Frawley, J. Fiechter, S. Koenigstein, A. Himes-Cornell, M.A. Alexander, S.J. Bograd, N. Cordero Quirós, L.B. Crowder, E. Curchitser, S.J. Green, N.A. Hardy, A.C. Haynie, E.L. Hazen, K. Holsman, G. Le Fol, N. Lezama-Ochoa, R.R. Rykaczewski, C.A. Stock, S. Stohs, J. Sweeney, H. Welch, and **M.G. Jacox** (2023), Projecting climate change impacts from physics to fisheries: a view from three California Current fisheries, *Progress in Oceanography*, accepted.
87. McClure M.M., M.A. Haltuch, E. Willis-Norton, D.D. Huff, E.L. Hazen, L.G. Crozier, **M.G. Jacox**, M.W. Nelson, K.S. Andrews, L.A.K. Barnett, A.M. Berger, S. Beyer, J. Bizzarro, D. Boughton, J.M. Cope, M. Carr, H. Dewar, E. Dick, E. Dorval, J. Dunham, V. Gertseva, C.M. Greene, R.G. Gustafson, O.S. Hamel, C.J. Harvey, M.J. Henderson, C.E. Jordan, I.C. Kaplan, S.T. Lindley, N.J. Mantua, S.E. Matson, M.H. Monk, P. Moyle, C. Nicol, J. Pohl, R.R. Rykaczewski, J.F. Samhuri, S. Sogard, N. Tolimieri, J. Wallace, C. Wetzel, and S.J. Bograd (2023) Vulnerability to climate change of managed stocks in the California Current large marine ecosystem, *Frontiers in Marine Science*, 10:1103767, doi:10.3389/fmars.2023.1103767.
86. Fennie, H.W., R. Seary, B. Muhling, S.J. Bograd, S. Brodie, M. Cimino, E.L. Hazen, **M.G. Jacox**, E. McHuron, S. Melin, J. Santora, J. Suca, J. Thayer, A.R. Thompson, P. Warzybok, and D. Tommasi (2023), An anchovy ecosystem indicator of marine predator foraging and reproduction, *Proceedings of the Royal Society B*, accepted.
85. Frawley, T.H., B. Muhling, S. Brodie, H. Blondin, H. Welch, M.G. Arostegui, S.J. Bograd, C.D. Braun, M.A. Cimino, N. Farchadi, E.L. Hazen, D. Tommasi, and **M.G. Jacox** (2023), Dynamic human, oceanographic, and ecological factors mediate transboundary fishing overlap across the Pacific high seas, *Fish and Fisheries*, 25, 60-81, doi:10.1111/faf.12791.
84. Amaya, D. J., M. A. Alexander, J. D. Scott, and **M. G. Jacox** (2023), An evaluation of high-resolution ocean reanalyses in the California Current System, *Progress in Oceanography*, 210, 102951, doi:10.1016/j.pocean.2022.102951.
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9. **Jacox, M.G.**, E.L. Hazen, and S.J. Bograd (2016), Optimal environmental conditions and anomalous ecosystem responses: Constraining bottom-up controls of phytoplankton biomass in the California Current System, *Scientific Reports*, 6, 27612, doi:10.1038/srep27612.
8. Neveu, E., A.M. Moore, C.A. Edwards, J. Fiechter, P. Drake, **M.G. Jacox**, and E. Nuss (2016), A historical analysis of the California Current using ROMS 4D-Var. Part I: System configuration and diagnostics, *Ocean Modelling*, 99, 133-151, doi:10.1016/j.ocemod.2015.11.012.
7. **Jacox, M.G.**, S.J. Bograd, E.L. Hazen, and J. Fiechter (2015), Sensitivity of the California Current nutrient supply to wind, heat, and remote ocean forcing, *Geophysical Research Letters*, 42, 5950-5957, doi: 10.1002/2015GL065147.
6. Kahru, M., **M.G. Jacox**, Z. Lee, R.M. Kudela, M. Manzano-Sarabia, and B.G. Mitchell (2015), Optimized multi-satellite merger of primary production estimates in the California Current using inherent optical properties, *Journal of Marine Systems*, 147, 94-102, doi:10.1016/j.marsys.2014.06.003.
5. **Jacox, M.G.**, J. Fiechter, A.M. Moore, and C.A. Edwards (2015), ENSO and the California Current coastal upwelling response, *Journal of Geophysical Research*, 120, 1691-1702, doi:10.1002/2014JC10650.
4. **Jacox, M.G.**, C.A. Edwards, M. Kahru, D. Rudnick, and R.M. Kudela (2015), The potential for improving remote primary productivity estimates through subsurface chlorophyll and irradiance measurement, *Deep-Sea Research Part II*, 112, 107-116, doi:10.1016/j.dsr2.2013.12.008.
3. **Jacox, M.G.**, A.M. Moore, C.A. Edwards, and J. Fiechter (2014), Spatially resolved upwelling in the California Current System and its connections to climate variability, *Geophysical Research Letters*, 41, 3189-3196, doi:10.1002/2014GL059589.
2. **Jacox, M.G.** and C.A. Edwards (2012), Upwelling source depth in the presence of nearshore wind stress curl, *Journal of Geophysical Research*, 117, C05008, doi:10.1029/2011JC007856.
1. **Jacox, M.G.** and C.A. Edwards (2011), Effects of stratification and shelf slope on nutrient supply in coastal upwelling regions, *Journal of Geophysical Research*, 116, C03019, doi:10.1029/2010JC006547.

ADDITIONAL PUBLICATIONS

16. Kojima A., T. Kilpatrick, **M. Jacox**, J. Tourjé-Maldonado, B. Valdez, and J. Cabrera (2024), Observational and modeling approaches for assessing impacts of offshore wind development on California Current upwelling: Workshop Summary – March 4, 2024. Workshop report prepared by Kearns & West for the U.S. Department of the Interior, Bureau of Ocean Energy Management, Pacific Regional Office, Camarillo, CA. 24 p. Report No.: OCS Study BOEM 2024-049.
15. Mills, K.E., E.B. Osborne, R.J. Bell, C.S. Colgan, S.R. Cooley, M.C. Goldstein, R.B. Griffis, K. Holsman, **M. Jacox**, and F. Micheli (2023), Ch. 10. Ocean ecosystems and marine resources. In: Fifth National Climate Assessment. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program, Washington, DC, USA, doi:10.7930/NCA5.2023.CH10.
14. Singh, D., A.R. Crimmins, J.M. Pflug, P.L. Barnard, J.F. Helgeson, A. Hoell, F.H. Jacobs, **M.G. Jacox**, A. Jerolleman, and M.F. Wehner (2023), Focus on compound events. In: *Fifth National Climate Assessment*. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program, Washington, DC, USA, doi:10.7930/NCA5.2023.F1.

13. Mayfield, K., A. Holloway, **M.G. Jacox**, and S. Martin (2022), Applying the PDP to government and industry career pathways, in *Leaders in effective and inclusive STEM: Twenty years of the Institute for Scientists & Engineer Educators*, pp. 405-416, edited by S. Seagroves, A. Barnes, A.J. Metevier, J. Porter, and L. Hunter.
12. **Jacox, M.G.**, M.A. Alexander, D. Amaya, E. Becker, S.J. Bograd, S. Brodie, E.L. Hazen, M. Pozo Buil, and D. Tommasi (2022), Global seasonal forecasts of marine heatwaves, *Science and Technology Infusion Climate Bulletin, NOAA's National Weather Service, 46th NOAA Annual Climate Diagnostics and Prediction Workshop*.
11. Harvey, C., N. Garfield, G. Williams, N. Tolimieri, I. Schroeder, K. Andrews, K. Barnas, E. Bjorkstedt, S. Bograd, J. Borchert, C. Braby, R. Brodeur, B. Burke, J. Cope, A. Coyne, D. Demer, L. deWitt, J. Field, J. Fisher, P. Frey, T. Good, C. Grant, C. Greene, E. Hazen, D. Holland, M. Hunter, K. Jacobson, **M. Jacox**, et al. (2020), Ecosystem Status Report of the California Current for 2019-2020: A Summary of Ecosystem Indicators Compiled by the California Current Integrated Ecosystem Assessment Team (CCEIA). U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-160.
10. Harvey, C., N. Garfield, G. Williams, N. Tolimieri, I. Schroeder, K. Andrews, K. Barnas, E. Bjorkstedt, S. Bograd, R. Brodeur, B. Burke, J. Cope, A. Coyne, L. deWitt, J. Dowell, J. Field, J. Fisher, P. Frey, T. Good, C. Greene, E. Hazen, D. Holland, M. Hunter, K. Jacobson, **M. Jacox**, et al. (2019), Ecosystem Status Report of the California Current for 2019: A Summary of Ecosystem Indicators Compiled by the California Current Integrated Ecosystem Assessment Team (CCEIA). U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-149.
9. Lopez, J., C.E. Lennert-Cody, M.N. Maunder, H. Xu, S. Brodie, **M.G. Jacox**, and J. Hartog (2019), Developing alternative conservation measures for bigeye tuna in the eastern Pacific Ocean: A dynamic management approach, *Inter-American Tropical Tuna Commission Scientific Advisory Committee, Tenth Meeting, San Diego, CA*, Document SAC-10 INF-D.
8. Harvey, C., N. Garfield, G. Williams, N. Tolimieri, I. Schroeder, E. Hazen, K. Andrews, K. Barnas, S. Bograd, R. Brodeur, B. Burke, J. Cope, L. deWitt, J. Field, J. Fisher, T. Good, C. Greene, D. Holland, M. Hunsicker, **M. Jacox**, et al. (2018), Ecosystem Status Report of the California Current for 2018: A Summary of Ecosystem Indicators Compiled by the California Current Integrated Ecosystem Assessment Team (CCIEA), U.S. Department of Commerce, *NOAA Technical Memorandum NMFS-NWFSC-145*, doi.org/10.25923/mvhf-yk36.
7. Harvey, C., N. Garfield, G. Williams, K. Andrews, C. Barceló, K. Barnas, S. Bograd, R. Brodeur, B. Burke, J. Cope, L. deWitt, J. Field, J. Fisher, C. Greene, T. Good, E. Hazen, D. Holland, **M. Jacox**, et al. (2017), Ecosystem Status Report of the California Current for 2017: A Summary of Ecosystem Indicators Compiled by the California Current Integrated Ecosystem Assessment Team (CCIEA). U.S. Department of Commerce, *NOAA Technical Memorandum NMFS-NWFSC-139*.
6. **Jacox, M.G.**, D.L. Rudnick, and C.A. Edwards (2017), Dominant physical mechanisms driving ecosystem response to ENSO in the California Current System, *US Clivar Variations*, 15(1), 22-26.
5. Tommasi, D., **M.G. Jacox**, M.A. Alexander, S. Siedlecki, F.E. Werner, C.A. Stock, and N.A. Bond (2017), Seasonal forecasts of ocean conditions in the California Current Large Marine Ecosystem, *US Clivar Variations*, 15(1), 41-46.
4. Moore, A.M., C.A. Edwards, J. Fiechter, and **M.G. Jacox** (2015), Observing system impacts on estimates of California Current transport, in *Coastal Ocean Observing Systems*, edited by Liu, Kerkering and Weisberg, pp. 351-372, Elsevier Inc.

3. Edwards, C.A., A.M. Moore, H. Song, J.P. Mattern, **M.G. Jacox**, and J. Fiechter (2015), Hindcasting and nowcasting the physical and biological state of the California Current System, *CalCOFI Rep.* 56.
2. **Jacox, M.G.** (2012), Controls on primary productivity and its measurement in the California Current System, PhD Dissertation, University of California, Santa Cruz.
1. **Jacox, M.G.** and M.L. Powers (2010), Science on Sunday: the prospective graduate student workshop in ocean science, in *Astronomical Society of the Pacific Conference Series 436, Learning from Inquiry in Practice*, pp. 247-257, edited by L. Hunter & A. J. Metevier, ASP, San Francisco, CA.

INVITED PRESENTATIONS

- 2023** California Islands Symposium, Ventura, CA.
- 2023** Pacific Grove Museum of Natural History, Pacific Grove, CA.
- 2023** Gulf of Maine Research Institute, Portland, ME.
- 2023** North American Multimodel Ensemble Workshop, Virtual.
- 2023** University of California, Santa Cruz, CA.
- 2022** Moss Landing Marine Laboratories, Moss Landing, CA.
- 2022** US CLIVAR Workshop on Future US Earth System Reanalysis, Boulder, CO.
- 2022** US CLIVAR Workshop on Daily to Decadal Ecological Forecasting Along North American Coastlines, Woods Hole, MA.
- 2021** NOAA Climate Diagnostics and Prediction Workshop, Virtual.
- 2021** Ocean and Coastal Community Modeling Workshop, Virtual.
- 2021** Southwest Fisheries Science Center Seminar Series, Virtual.
- 2021** SubX Forum, Virtual.
- 2021** U.S.-Japan symposium on the Fate of Fisheries in a Climate Changed World, Virtual.
- 2021** National Adaptation Forum, Virtual.
- 2020** International S2S Prediction Project, Virtual.
- 2020** 94th Meeting of the National Academy of Sciences Ocean Studies Board, Virtual.
- 2020** US CLIVAR Predictability, Predictions, and Applications Interface, Virtual.
- 2019** NOAA Earth System Science and Modeling Annual Workshop, Silver Spring, MD.
- 2019** NOAA Climate Connections Meeting, Silver Spring, MD.
- 2019** NOAA Ocean Color Coordinating Group, webinar.
- 2019** Estuary and Ocean Science Center, San Francisco State University, Tiburon, CA.
- 2019** Scripps Institution of Oceanography, La Jolla, CA.
- 2018** UC Davis Bodega Marine Laboratory, Bodega Bay, CA.
- 2018** International Symposium on Changes in Transitional Areas of the Pacific, La Paz, Mexico.
- 2018** Ocean Sciences Meeting (poster), Portland, OR.
- 2017** Gordon Research Conference, Biddeford, ME.
- 2017** Scripps Institution of Oceanography, La Jolla, CA.
- 2016** University of California, Santa Cruz, CA.
- 2016** Forecasting ENSO Impacts on Marine Ecosystems of the US West Coast, La Jolla, CA.
- 2016** PISCO Annual Meeting, Santa Cruz, CA.

- 2015** NOAA Southwest Fisheries Science Center, La Jolla, CA.
2015 University of Colorado, Boulder, CO.
2014 NOAA Geophysical Fluid Dynamics Laboratory, Princeton, NJ.
2014 University of California, Santa Cruz, CA.
2013 University of California, Berkeley, CA.
2013 San Francisco State University, San Francisco, CA.

CONTRIBUTED ORAL PRESENTATIONS

- 2024** Ocean Sciences Meeting, New Orleans, LA.
2023 Symposium on the Effects of Climate Change on the World's Ocean, Bergen, Norway.
2022 Open Science Conference on Eastern Boundary Upwelling Systems, Lima, Peru.
2022 Ocean Sciences Meeting, Virtual.
2021 NOAA General Modeling Meeting and Fair, Virtual.
2020 Ocean Sciences Meeting, San Diego, CA.
2019 PICES Annual Meeting, Victoria, Canada.
2018 PICES Annual Meeting, Yokohama, Japan.
2018 Symposium on the Effects of Climate Change on the World's Oceans, Washington, D.C.
2018 Ocean Sciences Meeting, Portland, OR.
2017 PICES Annual Meeting, Vladivostok, Russia.
2016 Ocean Sciences Meeting, New Orleans, LA.
2015 Eastern Pacific Ocean Conference, Fallen Leaf Lake, CA.
2015 Symposium on the Effects of Climate Change on the World's Oceans, Santos, Brazil.
2014 PICES Annual Meeting, Yeosu, South Korea.
2013 45th International Liège Colloquium on Ocean Dynamics, Liège, Belgium.
2010 International Meeting of Students in Physical Oceanography, Seattle, WA.

CONTRIBUTED POSTER PRESENTATIONS

- 2023** American Geophysical Union Fall Meeting, San Francisco, CA.
2018 Symposium on the Effects of Climate Change on the World's Oceans, Washington, D.C.
2015 Application of Seasonal to Decadal Climate Predictions for Marine Resource Management, Princeton, NJ.
2014 Ocean Sciences Meeting, Honolulu, HI.
2012 American Geophysical Union Annual Fall Meeting, San Francisco, CA.
2011 Gordon Research Conference – Coastal Ocean Modeling, South Hadley, MA.
2010 Learning from Inquiry in Practice, Santa Cruz, CA.
2009 Eastern Pacific Ocean Conference, Victoria, BC, Canada.

FIELD EXPERIENCE

- 2011** Monterey Bay 2011 (3 cruises; UCSC; R/V John Martin)
2010 Monterey Bay 2010 (UCSC; R/V John Martin)
2009 Monterey Bay 2009 (4 cruises; UCSC; R/V John Martin)
2008 Monterey Bay 2008 (6 cruises; UCSC; R/V John Martin)

- 2005 – 2008** Monthly Cruises (MBARI, R/V Point Lobos)
- 2007** Unmanned surface vehicle development, Palmetto, FL
- 2006 – 2007** Chief scientist, instrument deployments, Monterey Bay (12 cruises, R/V Sheila B)
- 2006** Airborne CO₂ flux measurement (Purdue University)
- 2006** Unmanned airborne CO₂ monitor deployment, Quincy, WA