

RUBAO JI

Senior Scientist, Biology Department
Woods Hole Oceanographic Institution

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EDUCATION

Ph.D. in *Biological Oceanography*, 2003

M.S. in *Computer Science*, 2002

M.S. in *Marine Biology*, 1994

B.S. in *Marine Biology*, 1991

University of Georgia

University of Georgia

Qingdao Ocean University

Qingdao Ocean University

EXPERIENCE

2025 – Present:	Biology Department Chair, Woods Hole Oceanographic Institution
2019 – Present:	Senior Scientist, Woods Hole Oceanographic Institution
2013 – 2019:	Associate Scientist w/ tenure, Woods Hole Oceanographic Institution
2009 – 2013:	Associate Scientist, Woods Hole Oceanographic Institution
2005 – 2009:	Assistant Scientist, Woods Hole Oceanographic Institution
2004 – 2005:	Research Associate, School for Marine Science and Technology, U. of Massachusetts
1999 – 2003:	Research Assistant, Department of Marine Sciences, U. of Georgia

RESEARCH INTERESTS

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|---|---------------------------------------|
| ▪ Coupled biological-physical modeling | ▪ Food web dynamics in coastal oceans |
| ▪ Zooplankton and larval fish population dynamics | ▪ Quantitative fisheries oceanography |
| ▪ Oceanography in polar and tropical regions | ▪ Population and community ecology |
| ▪ Plankton phenology and biogeography | ▪ Benthic-pelagic coupling |

HIGHLIGHTS IN RESEARCH/EDUCATION/SERVICE

- *Awards/honors*: Watson Chair for Excellence in Oceanography (2023-); Cooperative Institute for the North Atlantic Region (CINAR) Fellow (2013-2016); WHOI Postdoc Scholar Award (2004-2005).
- *Research projects*: PI or co-PI of ~50 research projects over the last 20 years.
- *Publications*: Published >100 peer-reviewed research articles as lead- or co-author on biological-physical coupled modeling, plankton dynamics, and food web dynamics.
- *Presentations*: Gave ~280 presentations, including invited talks (~80) and international conferences/meetings (~200); co-chair for topical sessions in a dozen of international conferences.
- *Education*: Sponsored 42 lab members (students, postdocs, and visiting investigators) over the last 20 years; served as a committee member for 17 MIT-WHOI Joint Program students and 14 students from multiple other institutions.
- *Service*: Reviewed over 80 papers from >20 different journals; Served as a panel member and proposal reviewer for NSF, NOAA, Sea Grant, and other regional programs; Co-chaired an ICES working group. Serving on editorial board for ICES Journal of Marine Science.

SELECTED PUBLICATIONS (* denotes student or postdoc advised)

- *Honda, I. A., L. P. Medeiros, C. R. S. Thompson, G. L. Britten, J. A. Runge, and R. Ji. 2025. Seasonal trophic controls drive population variability in a foundational marine copepod. *Scientific Reports*, 15(1):36018, <https://doi.org/10.1038/s41598-025-19919-2>.
- * Honda, I. A., **R. Ji**, G. L. Britten, C. Thompson, A. R. Solow, Z. Zang, and J. A. Runge. 2024. Shifting Phenology as a Key Driver of Shelf Zooplankton Population Variability. *Limnology & Oceanography*, <https://doi.org/10.1002/lno.12752>.
- * Honda, I. A., **R. Ji**, and A. R. Solow. 2023. Spatially varying plankton synchrony patterns at seasonal and interannual scales in a well-connected shelf sea. *Limnology & Oceanography Letters*, <https://doi.org/10.1002/lol2.10348>.
- *Zang, Z., **R. Ji**, D. R. Hart, C. Chen, L. Zhao, and C. S. Davis. 2022. Modeling Atlantic sea scallop (*Placopecten magellanicus*) scope for growth on the Northeast U.S. Shelf. *Fisheries Oceanography*, <https://doi.org/10.1111/fog.12577>.
- *David, C. L., **R. Ji**, C. Bouchard, H. Hop, and J. A. Hutchings. 2022. The interactive effects of temperature and food consumption on growth of larval Arctic cod (*Boreogadus saida*): A bioenergetic model. *Elementa: Science of the Anthropocene*, 10(1):00045, <https://doi.org/10.1525/elementa.2021.00045>.
- Ji, R.**, J. A. Runge, C. S. Davis, and P. H. Wiebe. 2021. Drivers of variability of *Calanus finmarchicus* in the Gulf of Maine: roles of internal production and external exchange. *ICES Journal of Marine Science*. doi:[10.1093/icesjms/fsab147](https://doi.org/10.1093/icesjms/fsab147).
- *Zang, Z., **R. Ji**, Z. Feng, C. Chen, S. Li, and C. S. Davis. 2021. Spatially varying phytoplankton seasonality on the Northwest Atlantic Shelf: a model-based assessment of patterns, drivers, and implications. *ICES Journal of Marine Science*. doi:[10.1093/icesjms/fsab102](https://doi.org/10.1093/icesjms/fsab102).
- Ji, R.**, M. Jin, Y. Li, Y.-H. Kang, and C.-K. Kang. 2019. Variability of primary production among basins in the East/Japan Sea: Role of water column stability in modulating nutrient and light availability. *Progress in Oceanography*, 178:102173.
- *Kvile, Ø. K., C. J. Ashjian, Z. Feng, J. Zhang, **R. Ji**, 2018. Pushing the limit: Resilience of an Arctic copepod to environmental fluctuations. *Global Change Biology*. DOI: 10.1111/gcb.14419.
- *Feng, Z., **R. Ji**, C. Ashjian, R. Campbell, J. Zhang, 2018. Biogeographic responses of the copepod *Calanus glacialis* to a changing Arctic marine environment. *Global Change Biology* 24:e159–e170. doi:10.1111/gcb.13890.
- Ji, R.**, Z. Feng, B. T. Jones, C. Thompson, C. Chen, N. R. Record, and J. A. Runge, 2017. Coastal amplification of supply and transport (CAST): a new hypothesis about the persistence of *Calanus finmarchicus* in the Gulf of Maine. *ICES Journal of Marine Sciences*, doi:10.1093/icesjms/fsw253.
- *Li, Y., **R. Ji**, S. Jenouvrier, M. Jin, and J. Stroeve, 2016. Synchronicity between ice retreat and phytoplankton bloom in circum-Antarctic polynyas, *Geophysical Research Letters*, doi: 10.1002/2016gl067937.
- *Jones, B. T., A. Solow, and **R. Ji**. 2016. Resource Allocation for Lagrangian Tracking. *Journal of Atmospheric and Oceanic Technology*, 33(6):1225–1235. (
- Ji, R.**, M. Jin, Ø. Varpe, 2013. Sea ice phenology and timing of production pulses in the Arctic Ocean. *Global Change Biology*, 19: 734-741.
- Ji, R.**, C. Ashjian, R. Campbell, C. Chen, G. Gao, C. Davis, G. Cowles, R. Beardsley, 2012. Life history and biogeography of *Calanus* copepods in the Arctic Ocean: An individual-based modeling study. *Progress in Oceanography*, 96(1): 40-56.
- Ji, R.**, 2011. *Calanus finmarchicus* diapause initiation: new view from traditional life history based model. *Marine Ecology Progress Series*. 440:105-114
- Ji, R.**, M. Edwards, D.L. Mackas, J. Runge, A.C. Thomas, 2010. Marine plankton phenology and life history in a changing climate: Current research and future directions. *Journal of Plankton Research – Horizons*, 32(10): 1355-1368. doi:10.1093/plankt/fbq062.
- Ji, R.** C. Davis, C. Chen, D. Townsend, D. Mountain, R. Beardsley, 2007. Influence of ocean freshening on shelf phytoplankton dynamics. *Geophysical Research Letters*, 34, doi:10.1029/2007GL032010.
- Ji, R.**, P. J. S. Franks, 2007. Vertical migration of dinoflagellates: Model analysis of strategies, growth and vertical distribution patterns. *Marine Ecology Progress Series*, 344: 49-61.