

RUBAO JI

Senior Scientist, Biology Department
Woods Hole Oceanographic Institution

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EDUCATION

Ph.D. in <i>Biological Oceanography</i> , 2003	University of Georgia
M.Sc. in <i>Computer Science</i> , 2002	University of Georgia
M.Sc. in <i>Marine Ecology</i> , 1994	Ocean University of China
B.Sc. in <i>Marine Biology</i> , 1991	Ocean University of China

EXPERIENCE

2019 – Present:	Senior Scientist, Woods Hole Oceanographic Institution
2013 – 2019:	Associate Scientist w/ tenure, Woods Hole Oceanographic Institution
2011 – Present:	Adjunct Professor, University of Massachusetts - Dartmouth
2009 – 2013:	Associate Scientist, Woods Hole Oceanographic Institution
2005 – 2009:	Assistant Scientist, Woods Hole Oceanographic Institution
2004.5- 2005.7:	Costal Ocean Institute Postdoctoral scholar, Woods Hole Oceanographic Institution
2004.1- 2004.4:	Research Associate, School for Marine Science and Technology, U. of Massachusetts
1999- 2003:	Research Assistant, Department of Marine Sciences, University of Georgia
1994-1998:	Assistant/Associate Research Scientist, First Institute of Oceanography, China

RESEARCH INTERESTS

- Coupled biological-physical numerical modeling
- Climate change and marine ecosystem response
- Zooplankton and larval fish population dynamics
- Oceanography in polar and tropical regions
- Plankton phenology and biogeography
- Food web dynamics in coastal oceans
- Quantitative fisheries oceanography
- Population and community ecology

SYNOPSIS OF RESEARCH/EDUCATION/SERVICE ACTIVITIES

- PI or co-PI of ~45 research projects over the last 18 years.
- Published 103 peer-reviewed research articles as lead- or co-author on topics such as biological-physical coupled modeling, plankton dynamics and food web dynamics.
- Gave >260 presentations in various settings, including invited talks (~80), and international conferences/meetings (~180).
- Supervised 40 lab members (students, postdocs, and visiting investigators) over the last 18 years; served as a committee member for 17 MIT-WHOI Joint Program students and 14 students from other domestic and international institutions.
- Reviewed over 75 papers from more than 20 scientific journals; Served as a panel member and proposal reviewer (>30 times) for federal (NSF, NOAA) and regional programs.
- Leadership/service activities: Co-chair for ICES working group on ecosystem modeling (2012-2015); Editorial board member for ICES Journal of Marine Sciences (2013-present); Cooperative Institute for the North Atlantic Region (CINAR) Fellow (2013-2016); Co-chair topical sessions for ~10 international conferences.

SELECTED PUBLICATIONS (* denotes students/postdocs from Ji lab)

- *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 and 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).
- *Song, H., **R. Ji**, M. Jin, Y. Li, Z. Feng, Ø. Varpe, and C. S. Davis. 2021. Strong and regionally distinct links between ice-retreat timing and phytoplankton production in the Arctic Ocean. *Limnology and Oceanography*. doi:<https://doi.org/10.1002/lno.11768>.
- 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, L24607, 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.