RUBAO JI

Senior Scientist, Biology Department
Woods Hole Oceanographic Institution

Phone: 508-289-2986
Email: rji@whoi.edu
Web: https://www2.whoi.edu/staff/rji

EDUCATION

Ph.D. in *Biological Oceanography*, 2003	University of Georgia
M.S. in *Computer Science*, 2002	University of Georgia
M.S. in *Marine Biology,* 1994	Qingdao Ocean University
B.S. in *Marine Biology,* 1991	Qingdao Ocean University

EXPERIENCE

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

- Coupled biological-physical modeling
- 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
- 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 19 years.
- *Publications:* Published 104 peer-reviewed research articles as lead- or co-author on biological-physical coupled modeling, plankton dynamics, and food web dynamics.
- *Presentations:* Gave >260 presentations, including invited talks (~80) and international conferences/meetings (~180); co-chair for topical sessions in ~10 international conferences.
- *Education:* Supervised ~ 40 lab members (students, postdocs, and visiting investigators) over the last 19 years; served as a committee member for 17 MIT-WHOI Joint Program students and 14 students from multiple other institutions.
- *Service:* Reviewed over 75 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., **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. 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 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.

*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.

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.