

Dr. RUBAO JI

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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
2011 – Present:	Adjunct Professor, University of Massachusetts - Dartmouth
2013 – 2019:	Associate Scientist w/ tenure, Woods Hole Oceanographic Institution
2013 – 2016:	Cooperative Institute for the North Atlantic Region (CINAR) Fellow
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
1998.3-1998.8:	Visiting Scientist, University of Georgia
1997-1998	Visiting Scientist, Korean Ocean Research & Development Institute
1995-1996:	Visiting Scientist, Institut francais de recherche pour l'exploitation de la mer, France
1997-1998:	Associate Research Scientist, First Institute of Oceanography, China
1994-1997:	Assistant 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
- Meta-population connectivity

SYNOPSIS OF RESEARCH/EDUCATION ACTIVITIES

- PI or co-PI of >35 research projects over the last 15 years.
- Published 75 peer-reviewed research articles (61 in English, 14 in Chinese) as lead- or co-author on topics such as biological-physical coupled modeling, plankton dynamics and food web dynamics.
- Gave >150 presentations in various settings, including invited talks, and international conferences/meetings; co-chair for topical sessions in 8 international conferences.
- Supervised a total of 36 lab members (students, postdocs and visiting investigators); served PhD committee for 9 MIT-WHOI Joint-Program students and 4 students from UMass-Dartmouth.
- Serving on editorial board for three research journals; Reviewed over 70 papers from >20 different journals; Served as panel member or proposal reviewer for NSF, NOAA, Sea Grant and other regional programs; Co-chaired an ICES working group.

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

- 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. *Progr. Oceanogr.*, 178:102173.
- *Kvile, K. Ø., C. Ashjian, and **R. Ji**. 2019. Pan-Arctic depth distribution of diapausing *Calanus* copepods. *The Biological Bulletin*, 237(2):76-89.
- *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.
- Ji, R.**, Feng, Z., Jones, B.T., Thompson, C., Chen, C., Record, N.R., Runge, J.A., 2017 Coastal amplification of supply and transport (CAST): a new hypothesis about the persistence of *Calanus finmarchicus* in the Gulf of Maine. ICES J Mar Sci. doi:10.1093/icesjms/fsw253
- *Feng, Z., **R. Ji**, C. Ashjian, R. Campbell, and J. Zhang. 2017. Biogeographic responses of the copepod *Calanus glacialis* to a changing Arctic marine environment. *Global Change Biology*, 24(1), e159-e170.
- *Li, Y., **R. Ji**, S. Jenouvrier, M. Jin, and J. Stroeve, 2016. Synchronicity between ice retreat and phytoplankton bloom in circum-Antarctic polynyas, *Geophys. Res. Lett.*, doi: 10.1002/2016gl067937.
- *Jones, B.T., A. Solow and **R. Ji**, 2016. Resource allocation for Lagrangian tracking. *J. of Atmospheric and Oceanic Technology*. DOI: <http://dx.doi.org/10.1175/JTECH-D-15-0115.1>
- Ji, R.**, M. Jin, Ø. Varpe, 2013. Sea ice phenology and timing of primary production pulses in the Arctic Ocean. *Global Change Biology*, 19: 734-741. DOI: 10.1111/gcb.12074.
- 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. *Progr. Oceanogr.*, 96(1): 40-56. doi:10.1016/j.pocean.2011.10.001
- Ji, R.**, C. Stegert, C. Davis, 2012. Sensitivity of copepod populations to bottom-up and top-down forcing: a modeling study in the Gulf of Maine region. *Journal of Plankton Research*, 35(1): 66-79.
- *Stegert, C. **R. Ji**, N. Li, C. Davis, 2012. Processes controlling seasonality and spatial distribution of *Centropages typicus*: A modeling study in the Gulf of Maine/Georges Bank region. *J. Plankt. Res.* 34(1): 18-35.
- Ji, R.**, 2011. *Calanus finmarchicus* diapause initiation: new view from traditional life history based model. *Mar. Ecol. Prog. Ser.* 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. *J. Plankt. Res.* 32:1355-1368.
- Ji, R.**, C. Davis, C. Chen, R. Beardsley, 2009. Life history traits and spatiotemporal distributional patterns of copepod populations in the Gulf of Maine-Georges Bank region. *Mar. Ecol. Progr. Ser.*, 384: 187-205.
- Ji, R.** C. Davis, C. Chen, D. Townsend, D. Mountain, R. Beardsley, 2008a. Modeling the influence of low-salinity water inflow on winter-spring phytoplankton dynamics in the Nova Scotian Shelf – Gulf of Maine region. *Journal of Plankton Research*, 30(12): 1399-1416.
- Ji, R.**, C. Davis, C. Chen, and R. Beardsley, 2008b. Influence of local and external processes on the annual nitrogen cycle and primary productivity on Georges Bank: A 3-D biological-physical modeling study. *Journal of Marine Systems*, 73: 31-47.
- Ji, R.** C. Davis, C. Chen, D. Townsend, D. Mountain, R. Beardsley, 2007a. Influence of ocean freshening on shelf phytoplankton dynamics. *Geophysical Research Letters*, 34, L24607.
- Ji, R.**, P. J. S. Franks, 2007b. Vertical migration of dinoflagellates: Model analysis of strategies, growth and vertical distribution patterns. *Marine Ecology Progress Series*, 344: 49-61.
- Ji, R.**, C. Chen, P. J. S. Franks, D.W. Townsend, E.G. Durbin, R. C. Beardsley, R.G. Lough, and R.W. Houghton, 2006. Spring bloom and associated lower trophic level food web dynamics on Georges Bank: 1-D and 2-D model studies. *Deep-Sea Research II*, 53(23-24): 2656-2683.
- Ji, R.**, C. Chen, P. J. S. Franks, D.W. Townsend, E.G. Durbin, R. C. Beardsley, R.G. Lough, and R.W. Houghton, 2006. The impact of Scotian Shelf Water “cross-over” on the plankton dynamics on Georges Bank: A 3-D experiment for the 1999 spring bloom. *Deep-Sea Research II*, 53(23-24), 2684-2707.