

CURRICULUM VITAE
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I. EDUCATION

Ph. D.	1991	Princeton University
M. A.	1988	Princeton University
B. S.	1984	Ocean University of China

II. PROFESSIONAL EXPERIENCE

2007 -	Professor
	School of Marine Sciences, University of Maine
2013 -	Senior Scientist, South China Sea Institute of Oceanology, Chinese Academy of Science, Guangzhou, China
2000 - 2007	Associate Professor
	School of Marine Sciences, University of Maine
1994 - 2000	Assistant Professor
	School of Marine Sciences, University of Maine
1993 - 1994	Research Assistant Professor
	Marine Sciences Program, University of North Carolina at Chapel Hill
1991 - 1993	Post-doctoral Research Associate

III. RESEARCH INTERESTS

Coastal ocean modeling and coastal ocean forecasting
Theoretical and numerical studies of the western boundary currents
Individual based coupled bio-physical models
Regional air-sea interactions
Ocean renewable energy, especially tidal power

IV. PUBLICATIONS

10 first author papers

1. Xue, H., and Y. Du, 2010: Implementation of a Wetting and Drying Model in Simulating the Kennebec-Androscoggin Plume and the Circulation in Casco Bay. *Oce. Dyn.*, 60, 341-357. DOI 10.1007/s10236-010-0269-3
2. Xue, H., L.S. Incze, D. Xu, N. Wolff, and N.R. Pettigrew, 2008: Connectivity of lobster populations in the coastal Gulf of Maine Part I: Circulation and larval transport potential. *Ecological Modelling*, 210, 193-211. doi:10.1016/j.ecolmodel.2007.07.024.
3. Xue, H., L. Shi, S. Cousins, and N. R. Pettigrew, 2005: The GoMOOS nowcast/forecast system. *Cont. Shelf Res.*, 25, 2122-2146.
4. Xue, H., F. Chai, N. R. Pettigrew, D. Xu, M. Shi, and J. Xu, 2004: Kuroshio Intrusion and the Circulation in the South China Sea. *J. Geophys. Res.*, Vol. 109, C02017, doi:10.1029/2002JC001724.
5. Xue, H., and F. Chai, 2002: Coupled Physical-Biological Model for the Pearl River Estuary: A Phosphate Limited Subtropical Ecosystem. Proceedings of the 7th International Conference on Estuarine and Coastal Modeling. ASCE, 913-928.
6. Xue, H., F. Chai, and N. R. Pettigrew, 2000: A model study of seasonal circulation in the Gulf of Maine. *J. Phys. Oceanogr.*, 30, 1111-1135.
7. Xue, H., Z. Pan, and J. M. Bane, Jr., 2000: A 2D coupled atmosphere-ocean model study of air-sea interactions during a cold air advection over the Gulf Stream. *Mon. Wea. Rev.*, 128, 973-996.
8. Xue H., and J. M. Bane, Jr., 1997: A numerical investigation of the Gulf Stream and its meanders in response to cold air outbreaks. *J. Phys. Oceanogr.*, 27, 2606-2629.
9. Xue, H., J. M. Bane, Jr. and L. M. Goodman, 1995: Modification of the Gulf Stream through Strong Air-Sea Interaction in winter: Observational and Modeling Results. *J. Phys. Oceanogr.*, 25, 533-557.
10. Xue, H., and G. L. Mellor, 1993: Instability of the Gulf Stream Front in the South Atlantic Bight. *J. Phys. Oceanogr.*, 23, 2326 - 2350.

10 corresponding author papers

1. Liu, L., **H. Xue**, and H. Sasaki, 2019: Reconstructing the ocean interior from high-resolution sea surface information. *J. Phys. Oceanogr.*, DOI:10.1175/JPO-D-19-0118.
2. Quan, Q., and **H. Xue**, 2019: Influence of abyssal mixing on the Multi-layer circulation in the South China Sea. *J. Phys. Oceanogr.*, 49, 3045-3060, DOI:10.1175/JPO-D-19-0020.
3. Chen, B., H. Qin, G. Chen, and **H. Xue**, 2019: Ocean salinity as a precursor of summer rainfall over the East Asia Monsoon region. *J. Clim.*, 32(17), 5659-5676, doi:10.1175/JCLI-D-18-0756.1.
4. Liang, L., **H. Xue**, and Y. Shu, 2019: The Indonesian Throughflow and the circulation in the Banda Sea: A modeling study. *J. Geophys. Res. Oceans.*, 124, 3089-3106, <https://doi:10.1029/2018JC14926>.
5. Quan, Q. and **H. Xue**, 2018: Layered model and insight into the vertical coupling of the South China Sea circulation in the upper and middle layers. *Oce. Mod.*, 129, 75-92.
6. Zhang, Z., **H. Xue**, F. Chai, and Y. Chao, 2017: Variability of the Pacific North Equatorial Current from 1993 to 2012 based on a 1/8° Pacific model simulation. *J. Geophys. Res. Oceans*, 122, doi:10.1002/2016JC12143.
7. Quan, Q., **H. Xue**, H. Qin, X. Zeng, and S. Peng, 2016: Features and interannual variability

- of the South China Sea Western Boundary Current. *Oce. Dyn.* 66(6), 795-810, DOI 10.1007/s10236-016-0951-1.
8. Shu, Y., **H. Xue**, D. Wang, F. Chai, Q. Xie, S. Cai, R. Chen, J. Chen, J. Li, and Y. He, 2016: Persistent and energetic bottom-trapped topographic Rossby waves observed in the southern South China Sea. *Sci. Rep.*, 6, 24338, doi:10.1038/srep24338.
 9. Huang, K., S. Derada, **H. Xue**, P. Xiu, F. Chai, Q. Xie, and D. Wang, 2015: A 1/8° coupled biochemical-physical Indian Ocean regional model: Physical Results and Validation. *Oce. Dyn.*, 65(8), 1121-1142, DOI:10.1007/s10236-015-0860-8.
 10. Shu, Y., **H. Xue**, D. Wang, F. Chai, Q. Xie, J. Yao, and J. Xiao, 2014: Meridional overturning circulation in the South China Sea envisioned from the high resolution global reanalysis data GLBa0.08, *J. Geophys. Res. Oceans*, 119, 3012-3028, doi:10.1002/2013JC009583.

10 other papers in the last 3 years

1. Feng, Y., S. F. DiMarco, K. Balaguru, and **H. Xue**, 2019: Seasonal and interannual variability of areal extent of the Gulf hypoxia from a coupled physical-biogeochemical model: Implication for management practice. *J. Geophys. Res. Biogeosciences*, <https://doi:10.1029/2018JG004745>.
2. Li, J., G. Wang, **H. Xue**, and H. Wang, 2019: A simple predictive model for the eddy propagation trajectory in the northern South China Sea. *Ocean Sci.*, 15, 401-412, <https://doi.org/10.5194/os-150401-2019>.
3. Yang, D., B. Yin, F. Chai, X. Feng, **H. Xue**, G. Gao, and F. Yu, 2018: The onshore intrusion of Kuroshio subsurface water from February to July and a mechanism for the intrusion variation. *Prog. in Oceanogr.*, 167, 97-115.
4. Zhang, W.-Z., Q. Ni, and **H. Xue**, 2018: Composite eddy structures on both sides of the Luzon Strait and influence factors. *Oce Dyn.*, doi.org/10.1007/s10236-018-1207-z.
5. Weistock, J. B., S. L. Morello, L. M. Conlon, **H. Xue**, and P. O. Yund, 2018: Tidal shifts in the vertical distribution of bivalve larvae: Vertical advection vs. active behavior. *Limn and Oceanogr.*, 63, 2681-2694, doi:10.1002/lno.10968.
6. Zu, T., **H. Xue**, D. Wang, B. Geng, L. Zeng, Q. Liu, J. Chen, and Y. He, 2018: Interannual variation of the South China Sea circulation during winter: intensified in the southern basin. *Clim. Dyn.*, <https://doi.org/10.1007/s00382-018-4230-3>.
7. Ren, A. S., F. Chai, **H. Xue**, D. M. Anderson, and F. P. Chavez, 2018: A sixteen-year decline in dissolved oxygen in the Central California Current. *Sci. Rep.*, 8, doi:10.1038/s41598-018-25341-8.
8. Liu, Q., F. Chai, R. Dugdale, Y. Chao, **H. Xue**, S. Rao, F. Wilkinson, J. Farrara, H. Zhang, Z. Wang, and Y. Zhang, 2018: San Francisco Bay nutrients and plankton dynamics as simulated by a coupled hydrodynamic-ecosystem model. *Cont. Shelf Res.*, 161, 29-48, <https://doi.org/10.1016/j.csr.2018.03.008>.
9. Conlon, L. M., **H. Xue**, S. L. Morcello, and P. O. Yund, 2018: Nearshore flow patterns in a complex, tidally driven system in summer: Part I. Model validation and circulation. *J. Geophys. Res. Oceans*, 123, 2401-2421, <https://doi.org/10.1002/2017JC013331>.
10. Zhou, F., F. Chai, D. Huang, **H. Xue**, J. Chen, P. Xiu, J. Xuan, J. Li, D. Zeng, X. Ni, and K. Wang, 2017: Investigation of hypoxia off the Changjiang estuary using a coupled model of

ROMS-CoSiNE. *Prog. in Oceanogr.*, 159, 237-254.
<http://dx.doi.org/10.1016/j.pocean.2017.10.008>.