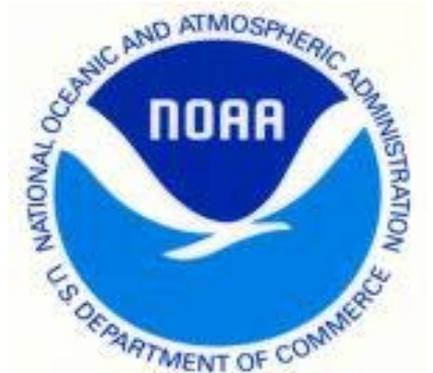
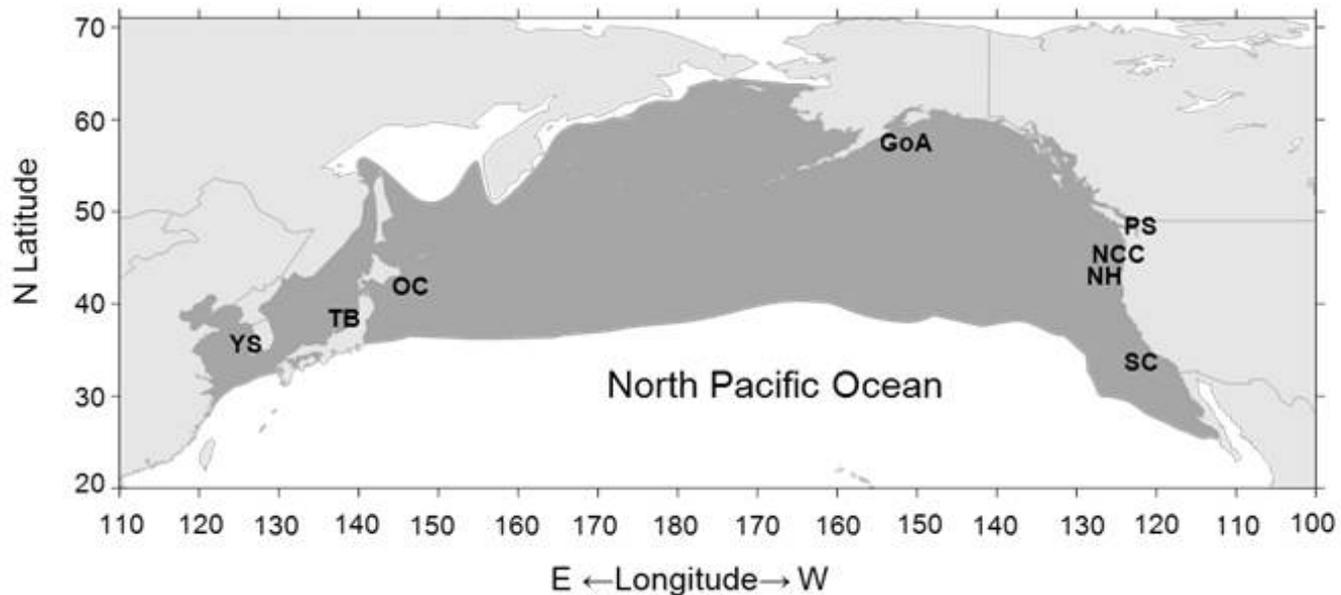


Euphausia pacifica: a euphausiid (krill)
species of trophic and economic importance
throughout the North Pacific

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Euphausia pacifica, a pan-Pacific species



PICES: Working Group 23: Comparative ecology of krill in coastal and oceanic waters around the Pacific Rim
Co-Chairs: William Peterson (US) and Song Sun (China)

Some Results – Publications and Exchange of Scientists

- Shaw, C.T., W.T. Peterson and S. Sun. 2013. PICES Scientific Report No. 43, Report of Working Group 23 on Comparative Ecology of Krill in Coastal and Oceanic Waters around the Pacific Rim. 100 p.
- Kawaguchi, S. and W. Peterson. 2010. Krill Biology and Ecology. Special Issue, Deep-Sea Res II 57:494-692 (17 research papers published in this special issue, including one on the vertical distribution of *E.pacifica* in the Yellow Sea
- Specimens of *E. pacifica* were obtained from the Yellow Sea and Japan for genetic comparison with specimens from the Bering Sea and Oregon.
- Johannson, M.L., A.L. Sremba, L.R.Feinberg, M.A. Banks and W. T. Peterson. 2012. The mitochondrial genomes of *Euphausia pacifica* and *Thysanoessa raschi* sequenced using 454 next-generation sequencing with a phylogenetic analysis of their position in the Malacostracan family tree. Molecular Biology Reports. 39:9009-9021
- Xiuning Du completed her Ph.D. research in my lab and graduated from Ocean University, in 2011.
- C.T.Shaw participated in three research cruises to the Yellow Sea on Korean ships
- Euphausiid Live Work Protocols.
<<http://www.pices.int/projects/Euphasiid/PICES%20Protocols%20COMPLETE.pdf>>

Research of Interest

- The Yellow Sea is among the more productive regions for *Euphausia pacifica* and must be one reason why the Yellow Sea is so productive for fisheries, yet far less is known about this species than elsewhere. Need basic data on seasonal cycles of abundance and age structure as well as rates of growth, production and consumption in order to model population dynamics.
- Need to work out their trophic role in the food chain of the Yellow Sea (what do they eat and who eats them).
- Yellow Sea may be the source for *E. pacifica* that are found in the East China Sea.
- Also interest in the “giant jellyfish” since the Yellow Sea may be the source of the population that eventually moves to the Japanese coasts.

Euphausia pacifica: a comparison of brood sizes

Note the apparent high productivity of female krill in the Yellow Sea.

