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www.elsevier.com/locate/csr

PII: S0278-4343(15)30030-3  
DOI: <http://dx.doi.org/10.1016/j.csr.2015.08.010>  
Reference: CSR3247

To appear in: *Continental Shelf Research*

Received date: 31 March 2015  
Revised date: 2 August 2015  
Accepted date: 12 August 2015

Cite this article as: Liping Zheng, Bingzhang Chen, Xin Liu, Bangqin Huang, Hongbin Liu and Shuqun Song, Seasonal variations in the effect of microzooplankton grazing on phytoplankton in the East China Sea, *Continental Shelf Research*, <http://dx.doi.org/10.1016/j.csr.2015.08.010>

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# Seasonal variations in the effect of microzooplankton grazing on phytoplankton in the East China Sea

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## Abstract

The effect of microzooplankton grazing on phytoplankton in the East China Sea (ECS) was investigated in summer 2009 and winter 2009/2010 using the dilution technique. There were no significant differences in phytoplankton growth rates and microzooplankton grazing rates between coastal (influenced by the Changjiang River plume) and offshore (influenced by the Kuroshio) waters in either season. The mean rates of phytoplankton growth ( $0.77 \pm 0.53 \text{ d}^{-1}$ ) and microzooplankton grazing ( $0.69 \pm 0.42 \text{ d}^{-1}$ ) in summer (n=26) were significantly higher than those in winter ( $0.39 \pm 0.18 \text{ d}^{-1}$  and  $0.21 \pm 0.08 \text{ d}^{-1}$  for mean rates of growth and grazing, respectively)(n=24). In both seasons, phytoplankton growth and microzooplankton grazing rates were significantly higher

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