

# NOTICE OF PUBLICATION



AQUAFISH COLLABORATIVE RESEARCH SUPPORT PROGRAM

## RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

**Title:** Hemolymph profiles of pond-reared and lake pen-cultured adult Chinese mitten crab, *Eriocheir sinensis* H. Milne Edwards, 1853

**Author(s):** X. J. CAO, C. ZENG, W. LUO, Y. GUL, L. CUI AND W. M. WANG

College of Fisheries, Huazhong Agricultural University, No. 1 Shizishan Street, Hongshan District  
Wuhan, Hubei- 430 070, P. R. China

**Date:** July 12, 2012

Publication Number: CRSP Research Report 12-302

The CRSP will not be distributing this publication. Copies may be obtained by writing to the authors.

**Abstract:** Levels of seven hemolymph parameters (considered as indicators of physiological and immune status of organisms) in pond-reared (PR) and lake pen-cultured (PC) adult Chinese mitten crabs sampled from three experimental sites viz., a pond at Huangjin Lake area, a net-pen in the Huangjin Lake and a pond at Lu Lake area were analysed. Two sites in the Huangjin Lake area where the pond meets the lake, possessed good water quality whereas at Lu Lake area where the pond was not connected to the Lu Lake, the water quality was relatively poor. Hemocyanin content and total hemocytes count in PR crabs from Lu Lake area were significantly lower than those of PR and PC crabs from Huangjin Lake area, indicating PR crabs from Lu Lake area had relatively poor physiological and immune status. There were no significant differences in hemolymph profiles between PR and PC crabs from Huangjin Lake area. These results indicate that water quality had a significant effect on the physiological and immune status of cultured Chinese mitten crabs. The results indicate that pond-rearing is better for culture of Chinese mitten crabs, especially in ponds which are connected to natural water resources.

This abstract is excerpted from the original paper, which was published in Indian J. Fish., 59(1) : 95-101, 2012.

**CRSP RESEARCH REPORTS** are published as occasional papers by the Program Management Office, Aquaculture Collaborative Research Support Program, Oregon State University, 418 Snell Hall, Corvallis, Oregon 97331-1643 USA. The Aquaculture CRSP is supported by the US Agency for International Development under CRSP Grant No. EPP-A-00-06-00012-00 and by collaborating institutions. See the website at <[aquafishcrsp.oregonstate.edu](http://aquafishcrsp.oregonstate.edu)>.