

Prevalence, infection intensity and
histopathology of *Perkinsus* in Venus clam,
Protothaca jedoensis from Yo-su, Korea

Thao T.T. Ngo¹, Kyung-Il Park¹, Na-Rae Lim¹, Sang-Duk Choi²
and Kwang-Sik Choi¹

¹School of Applied Marine Sciences, Cheju National University, 1 Ara 1
Dong, Cheju, Chejudo 690-756, Korea

²Fisheries Science Institute, Yosu National University, Yosu 550-749, Korea

Abstract

Venus clam, *Protothaca jedoensis* was collected in June 2003 from Yosu, Korea. The prevalence and infection intensity of *Perkinsus* was determined by Ray's Fluid thioglycollate medium technique and Choi's 2 M NaOH digestive assay. The prevalence of infection was 80% in Yosu; 54.2% in Taejon and 15.5% in Sachon. Consequently, infection intensity was highest in clams from Yosu (6250 ± 8188 *Perkinsus* cells/g of tissue) whereas lower levels were found in Taejon (5072 ± 10862 *Perkinsus* cells/g of tissue) and in Sachon (2452 ± 15300 *Perkinsus* cells/g of tissue). Histological observation showed that *Perkinsus* presented in mantle, gills, digestive tubes and gonad of clams. The hemocytic infiltrations and tissue damages were found in heavy *Perkinsus*-infected clams. Results after immunofluorescence staining with antibody developed from *Perkinsus atlanticus* suggested that there is closed relationship between *Perkinsus* found in Venus clam and Manila clam.