## Diagnostic assay and growth of hypnospores of Perkinsus sp. a protozoan parasite of the Manila clam Ruditapes philippinarum

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The protozoan parasite Perkinsus is responsible for current mass mortality in commercially important marine molluscs throughout the world as well as in Korea. We have investigated internal distribution of Perkinsus in the Manila clam including gills, mantle, visceral mass, adductor muscle and foot using Rays fluid thioglycollate medium (RFTM) culture method. The infection intensity of the parasite was determined by Chois NaOH technique. In addition, growth of hypnospore size in RFTM was compared with hypnospores cultured under anaerobic condition for 7 days. Most hypnospores were distributed in the gills (46.12 %), followed by visceral mass (28.98 %), mantle (21.94 %), adductor muscle (1.65 %) and foot (1.31%). There was a significant positive correlation between number of hypnospores in the gill tissues and total number of hypnospores in a clam (r2=0.88). For accuracy and convenience diagnostic, we suggest using the gill assay for quantitative measurement of infection intensity of Perkinsus. Size in terms of diameter of hypnospores incubated in RFTM enlarged to 65 µm within 24 hr but no growth was occurred afterwards. In case of hypnospores placed in an anaerobic chamber increased their mean size to only about 20 µm within 24 hr and did not grow over 40  $\mu m$  even after 7 days of incubation. In this study hypnospores were induced from trhophozoite in vitro without aid of FTM and confirmed that hypnospore stage could be one of the life stage of Perkinsus possibly existed in natural condition.

## Z 123 Molluscs from the songsan lichulbang area, chejudo

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Chejudo, because of its location off the south coast of the Korean peninsula, has a varied marine mollusk fauna. As a preliminary step in an attempt to enumerate and study the mollusks of the island, a field trip was made by the authors to the Songsan Ilchulbang area on February 20, 2001. The purpose of the trip was to survey the mollusk fauna of the shoreline west of Songsan. This shoreline was composed of flat slabs of basalt? which were exposed at low tide. Above the rocky shoreline was a sandy beach. Dead specimens were collected along the sandy beach adjacent to the rocky area, mainly in the driftline, and in tidepools on the rocky slabs. Live specimens were collected exposed on the rocks and in tidepools and crevices. The shells of several species were inhabited by hermit crabs. Fifty-nine species of gastropods, eighteen bivalve species, and four species of chitons (Polyplacophora) were collected and identified during this survey. Three additional species of gastropods were unidentified, making a total of eighty-four species. Of the gastropods, the Trochidae were best represented with nine species, followed by the Columbellidae with five and the Muricidae with four. The Veneridae, with four species, was the best represented of the bivalves. Two families of Polyplacophora, Chitonidae and Acanthochitonidae, had two species each. Undoubtedly, a closer examination of this area will reveal species overlooked at this time.