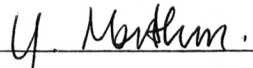


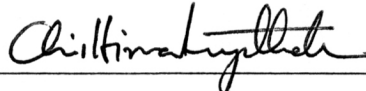
Yaowaluk Monthum 2008: Ecology of Free-living Marine Nematodes in Tha Len Bay Seagrass Bed, Krabi Province. Doctor of Philosophy (Marine Science), Major Field: Marine Science, Department of Marine Science. Thesis Advisor. Associate Professor Chittima Aryuthaka, D.Sc. 213 pages.

Thirteen taxa of meiobenthos were found in Tha Len Bay Seagrass Bed, Krabi Province. The most dominant taxon was marine nematodes comprising 81±5% , followed by copepod, polychaete and the others. Meiofaunal density was highest in the areas with seagrasses than those without seagrasses and the highest densities were recorded around the areas of *Halophila ovalis*. Marine nematode density varied depending on the seagrass species and varied from 267.06±184 to 696.79±185 individual/ 10 cm². Species diversity of marine nematode varied in each areas, and was higher in areas without seagrasses (3.71±0.16) than those with seagrasses (3.39-3.63). The following dominant species; *Paralongicyatholaimus* sp.2, *Gomphonema* sp., *Daptonema* sp.1 and *Paracanthochus* sp.1 could be found in all area: while *Metalinhomoeus* sp.1, *Perspiria* sp.2, *Praecanthochus* sp., *Perspiria* sp.1 and *Daptonema* sp.2. varied in density depending, on the seagrass species. Analyses of the feeding types within the nematode species revealed that epigrowth feeders were the dominant group, while the non-selective deposit feeders were found in the areas of high organic matter, particularly around the areas of *Halophila ovalis*.

The contents of phenolic compound were extracted from 3 seagrass species. It was found that *Halophila ovalis* had the highest concentration, while *Halodule uninervis* and *Thalassia hemprichii* had lower levels. Moreover, its contents in the above-ground part were higher than that in the below-ground one in all these seagrass species. From experiment studies, fresh phenolic compounds from all seagrass species did not affect the marine nematode community. But after one day of experiment, the phenolic compound of *Halophila ovalis* could cause a decrease in the density of nematodes.



Student's signature



Thesis Advisor's signature

23 / May / 08