

Eakapal Rattanapun 2007: Species Diversity of Diatom Genus *Chaetoceros* in Samaesan Islands, Chon Buri Province. Master of Science (Marine Science), Major Field: Marine Science, Department of Marine Science. Thesis Advisor: Assistant Professor Sunan Patarajinda, M.S. 260 pages.

The Study on species diversity of diatom genus *Chaetoceros* in Samaesan Islands, Sattahip District, Chon Buri Province was investigated bimonthly during January 2004 to December 2005 from 12 stations. Plankton samples were collected by using plankton nets, 20 and 70 micrometers mesh sizes. Under light microscope (LM) and scanning electron microscope (SEM). A total of 28 species, 2 varieties were identified: *Chaetoceros aequatorialis*, *C. affinis*, *C. anastomosans*, *C. atlanticus* var. *neapolitanus*, *C. brevis*, *C. coarctatus*, *C. compressus*, *C. costatus*, *C. curvisetus*, *C. debilis*, *C. decipiens*, *C. denticulatus*, *C. didymus*, *C. didymus* var. *anglica*, *C. diversus*, *C. eibenii*, *C. laciniosus*, *C. laevis*, *C. lauderi*, *C. lorenzianus*, *C. messanensis*, *C. paradoxus*, *C. peruvianus*, *C. pseudocurvisetus*, *C. rostratus*, *C. socialis*, *C. tetrastichon*, *C. tortissimus* and *Chaetoceros* sp. The dominant species which regularly found: *Chaetoceros compressus*, *C. lorenzianus* and *C. peruvianus*. The very rare species: *Chaetoceros anastomosans* and *C. atlanticus* var. *neapolitanus*. The density of diatom genus *Chaetoceros* varied between 100-9,713 cell/l (15-49 % of total phytoplankton density). The The highest average of *Chaetoceros* density was November 2004 (3,557 cell/l).

Student's signature

Thesis Advisor's signature

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