

# # 4172343323 : MAJOR ENVIRONMENTAL SCIENCE

KEY WORD: *E. coli* / *Vibrio* spp. / Streptococci / INDEX / COASTAL WATER QUALITY

PATAMAPORN PLEPLAKORN : POSSIBLE BACTERIAL INDICATOR FOR FAECAL CONTAMINATION OF COASTAL WATER. THESIS ADVISOR : ASSIST.PROF. CHARNWIT KOSITANONT, Ph.D. 84 pp. ISBN 974-17-0642-1.

From 24 samples of sea waters collected from Hua Hin beach monthly during July - December 2000, correlation among coliform, *E.coli*, *Vibrio* spp. and Streptococci were determined. It was found that *E. coli* correlated to coliform bacteria by coefficient of determination of 53.5%. *Vibrio* spp. correlated to coliform and *E. coli* at 17.2% and 16.1% of the coefficient of determination respectively. Streptococci was found correlated to *E.coli* by coefficient of determination of 10.2% but not to the other studied bacteria. Considering correlation among studied bacterial number at each station, *Vibrio* spp. was found correlated to coliform in every station but correlated to *E.coli* only at Phraratchaniwet Marukkhathaiyawan and Sailom Hotel. Streptococci did not correlated to any other studied bacteria. *E. coli* was highly correlated to coliform in most station except at Tubtim joss-house which the coefficient of determination and P-value of 39.1% and 0.03 respectively.