IMPOSEX AND POPULATION CHARACTERISTICS OF *THAIS DISTINGUENDA* AS AN INDICATOR OF ORGANOTIN CONTAMINATION ALONG THE SOUTH EAST COAST OF PHUKET ISLAND, THAILAND

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ABSTRACT

Imposex, the development of a penis and/or vas deferens of female gastropods, has been linked to the presence of the biocide tributyltin (TBT) used in antifouling paints. The muricid *Thais distinguenda* was chosen as an indicator organism and imposex was examined at 21 stations as transects from different centres of boating activity off Phuket Island on the west coast of Thailand. Significant correlations (Spearman Rank) were obtained between distance from presumed source of TBT, and percentage of females with imposex and relative penis size index. Distance from source was positively correlated with density of *T distinguenda*, but no significant correlations were found for sex ratio or size distribution of snails. The factor of correlation and probability varied with boating activity and the degree of exposure of each site to the open sea. Transplantation of *T distinguenda* from a station without imposex, to a station with imposex, revealed an increase in imposex after 80 days. The areas with the highest incidence of imposex were considered moderately contaminated, but localised within 3.5 km from the presumed sources of TBT.