

Phuket mar. biol. Cent. Res. Bull. 60: 79-82 (1995)

**LYSOSOMAL MEMBRANE IMPAIRMENT IN BLOOD CELLS OF
PERNA VIRIDIS : AN *IN VITRO* MARKER OF CONTAMINANT
INDUCED DAMAGE**

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ABSTRACT

Lysosomal membrane damage was investigated in mussels (*Perna viridis*) transplanted to a clean reference site at the PMBC jetty (4 days) and to a contaminated site at the Phuket Oil Depot (6 days). The results of a neutral red retention assay on the blood cell lysosomes of the mussels transplanted to the Oil Depot indicated a significant decrease in the dye retention capacity. These results are indicative of a disturbance to the membrane structure resulting from exposure to the contaminants resident in that environment.

In a separate complementary study the capacity of blood cell lysosomal membrane, from the mussel *Mytilus edulis*, for repair was investigated following long term chronic to contaminant exposure. The results of this study, which involved depuration for up to 7 days, indicated that lysosomal membrane damage was not a transient phenomenon and, as such, could have serious consequences for the animals concerned.