

STUDIES ON THE DISTRIBUTION OF CHLORINATED PESTICIDE
IN THE TISSUE OF BIVALVES (*Galania ceylanica*) AND
SEDIMENT IN THE SETIU WETLAND

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IN THE TISSUE OF BIVALVES (*Gelonia ceylonica*) AND
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By

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Thesis submitted in partial fulfillment of the requirement for the Degree
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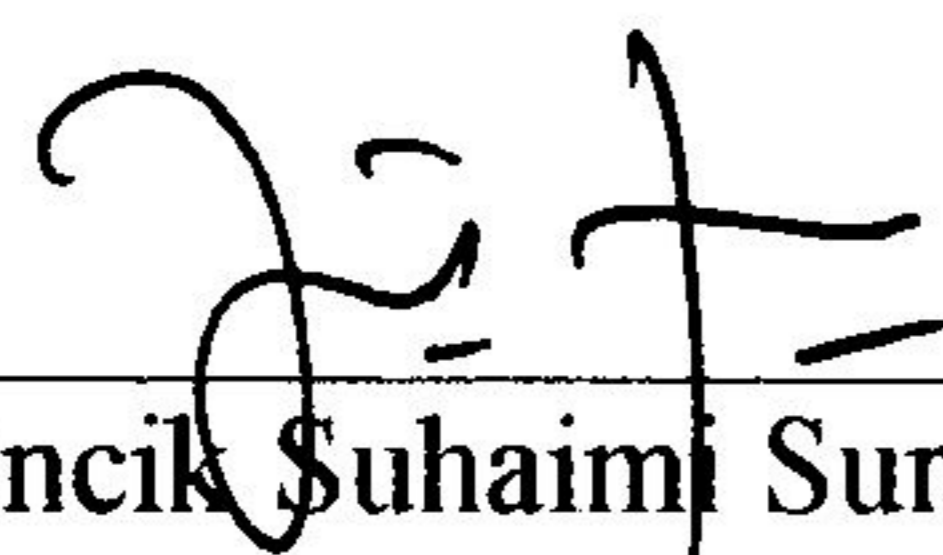
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ABSTRAK

Taburan pestisid berklorin di kawasan paya Setiu melibatkan 6 stesen dikaji. Kepekatan pestisid berklorin yang dikesan adalah rendah iaitu dalam julat 0.15 ng/g – 18.05 ng/g dalam sampel sedimen dan 4.53 ng/g – 33.73 ng/g dalam sampel biota (lokan). Dalam sedimen, kepekatan kumpulan DDT adalah dalam julat 0.047ng/g – 7.84 ng/g; 0.041 ng/g – 4.91 ng/g bagi kumpulan BHC dan 0.0021 ng/g – 3.56 ng/g bagi sebatian siklodiena. Bagi biota, kepekatan kumpulan DDT adalah dalam julat 3.12 ng/g – 9.51 ng/g; 1.48 ng/g - 26.24 ng/g bagi kumpulan BHC dan 0.31 ng/g – 4.22 ng/g bagi siklodiena. Jumlah karbon organik dan partikel saiz sedimen serta parameter fizikal air seperti suhu, pH dan oksigen terlarut juga tidak menunjukkan hubungan yang jelas dengan taburan pestisid berklorin. Secara keseluruhannya, pencemaran pestisid berklorin di kawasan kajian adalah rendah.

ABSTRACT

The distribution of chlorinated pesticide in Setiu wetland was studied involving 6 stations. Concentrations of chlorinated pesticide detected in this study were low ranging from 0.15 ng/g – 18.05 ng/g in sediment and 4.53 ng/g – 33.73 ng/g in biota (bivalves) samples. In sediment, the concentrations of DDT group was ranging from 0.047 ng/g – 7.84 ng/g; 0.041 ng/g – 4.91 ng/g for BHC group and 0.0021 ng/g - 3.56 ng/g for cyclodiene group. In biota, the concentrations of DDT group was ranging from 3.12 ng/g – 9.51 ng/g; 1.48 ng/g – 26.24 ng/g for BHC group and 0.31 ng/g – 4.22 ng/g for cyclodiene group. Relationship between chlorinated pesticide concentrations and total organic carbon, particle sizes and physical parameters of water such as temperature, pH and dissolved oxygen showed no significant different. Overall, contamination by chlorinated pesticide in the study area was low.