

MEIOBENTHOS COMMUNITY IN RELATION
TO ENVIRONMENTAL VARIABILITY IN
KUALA IBAI ESTUARY, KUALA TERENGGANU.

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KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA
(KUSTEM)

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Judul: MEIOBENTHOS COMMUNITY IN...
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**MEIOBENTHOS COMMUNITY IN RELATION
TO ENVIRONMENTAL VARIABILITY IN
KUALA IBAI ESTUARY, KUALA TERENGGANU.**

By :

ROSMAN BIN EMBONG

**This project report is submitted in partial
Fulfilment of the requirement for the
Bachelor of Science (Biological Sciences)**

**Department of Biological Sciences
Faculty of Science and Technology
University College of Science &
Technology Malaysia, KUSTEM
2002**

Dedication

To wife , Noraini ,

Childrens ,

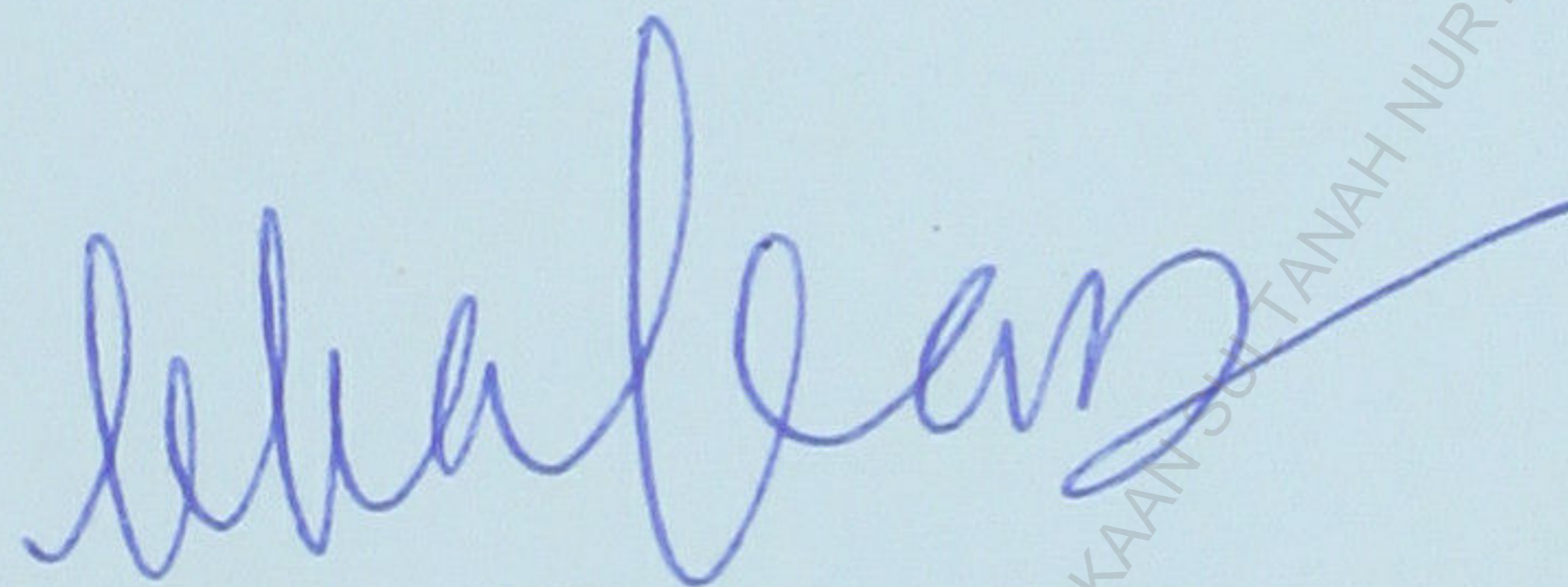
Aiza Shahida
Khairi Asyraf
Faiq Irsyad
Haziq Fahmi

PERPUSTAKAAN SULTANAH NUR ZAHIRAH

APPROVAL AND CERTIFICATION FORM

I certify that the report of this final year project entitle Meiobenthos Community In Relation To Environmental Variability In Kuala Ibai Estuary, Kuala Terengganu by Rosman bin Embong, matric no. UK 4735 have been read and all the alternation and correction recommended by Examiner have been done. This thesis submitted to Department of Biological Science, have been accepted as fulfilment of the requirement for degree of Bachelor of Science (Biological Sciences) in Faculty of Science and Technology, Kolej Universiti Sains Dan Teknologi Malaysia (KUSTEM).

Certify by :



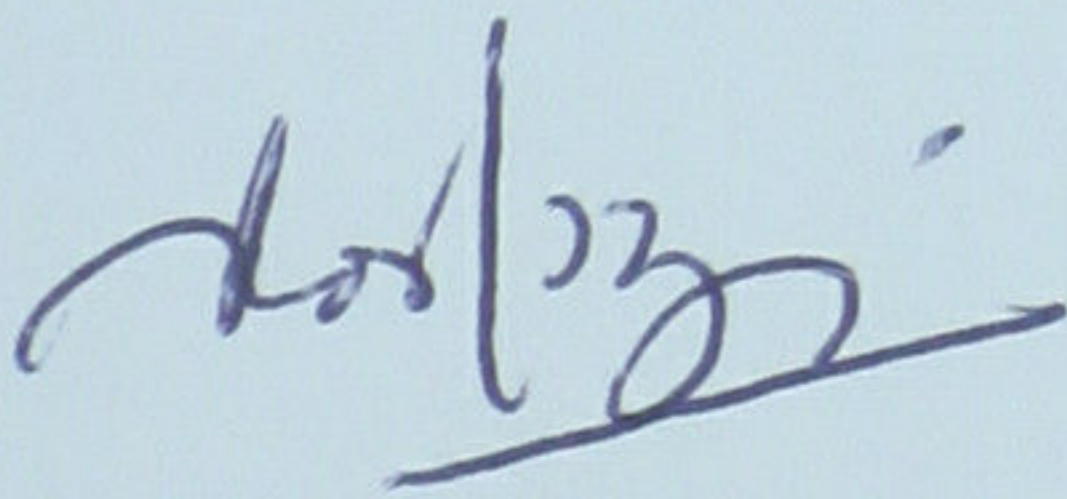
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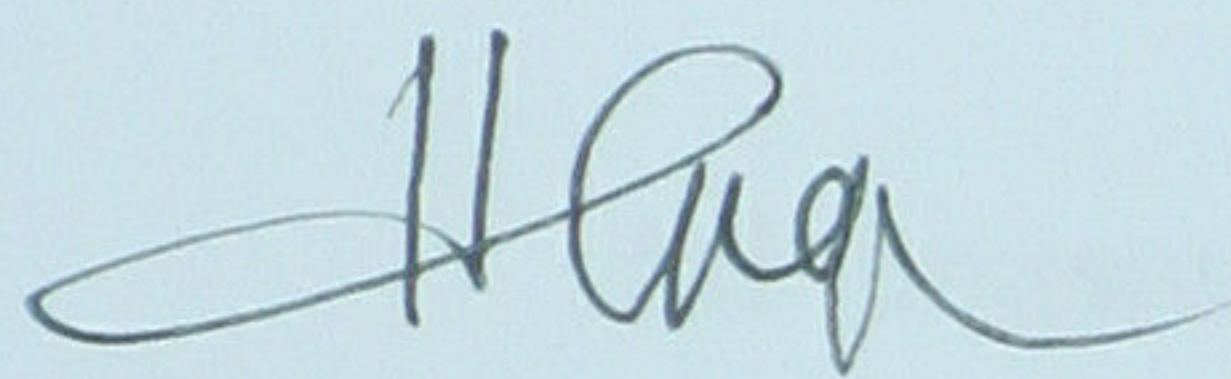
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PERPUSTAKAAN SULTANAH NUR ZAHIRAH

Abstract

The study on the meiobentos community in relation to environmental variability in Sungai Ibai was conducted from March 2002 to June 2002. The samples were obtained by using a transparent hand corer from the established transects. Seven meiobenthic taxa were found on their established habitat along the transects. Study showed that harpacticoid copepods were the most dominant group of meiobentos found. They contributed 39.44 % density of the total meiobentos in Sungai Ibai estuary. Nematodes were the second dominant group with a density of 29.22 %. Most of them were found along the transect nearer to the sea. Other taxa found include foraminiferans, tubellarians, polychaetes and oligochaetes but to a lesser density. Physico-chemical parameters of the estuary had profound effects on the distribution, density and abundance of the meiobenthic group. These parameters include salinity, temperature, total organic matter and the dissolved oxygen which always fluctuate at all transects. The Pearson correlation analysis proved that the distribution of meiobenthic group correlated significantly at $p < 0.05$ with the environmental factors namely salinity, temperature, dissolved oxygen and total organic matter in the estuary in Sungai Ibai.

Abstrak

Kajian mengenai komuniti meiobentos muara sungai telah dijalankan dari bulan Mac 2002 hingga bulan Jun 2002 di muara Sungai Ibai . Pengorek lutsinar digunakan bagi mendapatkan sampel kajian dari 3 transek yang telah ditetapkan . Sekurang-kurangnya tujuh taksa meiobentos telah dikenalpasti mendiami kawasan muara Sungai Ibai. Kajian menunjukkan, kopepod harpatikoid merupakan meiobentos yang paling dominan dengan peratus sebanyak 39.44 % dari keseluruhan jumlah meiobentos . Nematod merupakan taksa kedua terbesar dengan kepadatan 29.6%. Kebanyakannya ditemui di sepanjang transek yang lebih hampir ke laut . Foraminifera, tubelaria , polychaeta dan oligochaeta juga ditemui tapi dalam jumlah yang sedikit. Parameter persekitaran seperti saliniti , suhu , oksigen terlarut dan jumlah bahan organik di muara sungai didapati berubah-ubah di semua transek. Berdasarkan analisis korelasi Pearson, parameter persekitaran yang dikaji menunjukkan hubungan yang bererti ($p < 0.05$) dengan taburan, kepadatan dan kelimpahan komuniti meiobentos .