

THE STUDY OF PARASITES INFESTATION  
ON WILD GIANT FRESHWATER PRAWN,  
MACROBRACHIUM ROSENBERGII  
IN PENINSULAR MALAYSIA

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FRESHWATER PRAWN, *Macrobrachium rosenbergii*  
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**SEPTEMBER 2011**

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Wild giant freshwater prawn *Macrobrachium rosenbergii* (de Man, 1879) collected from Sungai Timun (Negeri Sembilan) and Sungai Rubana (Perak) of Peninsular Malaysia, during the period October 2008 to Feb 2010, was subjected to the study of morphology and prevalence of various parasites due to rainfall changes. A wide range of parasites were found which represented by epibiont protozoan (*Zoothamnium* sp., *Epistylis* sp., *Acineta* sp., *Lagenophrys* sp., *Cothurnia* sp., *Vorticella* sp., unknown apistome ciliated cysts), apicomplexa gregarine (*Nematopsis* sp.), metazoan parasite (digenean metacercariae), bopyrid isopod and leech cocoons. All together 11 species were found infecting *M. rosenbergii* in Sg. Timun and 9 species in Sg. Rubana. A majority of the parasite species infected specimens from both locations, except for *Vorticella* sp. and isopod. Higher prevalence of parasites was found in Sg. Rubana, but Sg. Timun had a greater diversity of parasites community. In seasonal



variation, lowest prevalence was achieved during dry season (May – July). Isopod infections were limited to January, and leech cocoons were confined to period November to June. The occurrence of these epibionts should pose no problem to *M. rosenbergii* in the wild, however diseases transmission may occur when the infected host are introducing into a culture system. The significant finding of this study is that this is the first report on the parasites on wild *M. rosenbergii* in peninsular Malaysia.

KEYWORDS: *Macrobrachium rosenbergii*, parasites, morphology, prevalence, Malaysia.

Abstrak tesis yang dikemukakan kepada Senate of Universiti Malaysia Terengganu sebagai memenuhi keperluan untuk ijazah Master Sains.

**KAJIAN INFESTASI PARASIT PADA UDANG GALAH LIAR,  
*Macrobrachium rosenbergii* DI SEMENANJUNG MALAYSIA**

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**SEPTEMBER 2011**

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Udang galah liar *Macrobrachium rosenbergii* (de Man, 1879) dari Sungai Timun (Negeri Sembilan) and Sungai Rubana (Perak) di semenanjung Malaysia, dalam tempoh Oktober 2008 sehingga Febuari 2010, telah dikajikan untuk pengetahuan morfologi dan prevalen pelbagai parasit berhubung kait dengan perubahan hujan. Parasit yang dijumpai dibahagikan kepada kumpulan protozoa (*Zoothamnium* sp., *Epistylis* sp., *Acineta* sp., *Lagenophrys* sp., *Cothurnia* sp., *Vorticella* sp., unknown apostome ciliated cysts), apicomplexa gregarine (*Nematopsis* sp.), parasit metozoan (digenean metacercariae), isopod dan telur lintah. Kesemuanya 11 spesis parasit yang dijumpai pada *M. rosenbergii* dari Sg. Timun dan 9 spesis dari Sg. Rubana. Majoriti spesis parasit yang dijumpai di kedua-dua lokasi adalah sama, kecuali untuk *Vorticella* sp. dan isopod. Prevalen jangkitan parasit lebih tinggi dijumpai di Sg. Rubana, tetapi diversiti bagi komuniti parasit lebih besar di Sg. Timun. Prevalen jangkitan parasit

adalah lebih rendah ketika musim kering/kemarau (Mei-Julai). Jangkitan isopod terhad pada bulan Januari, dan telur lintah hanya diperolehi pada bulan November kepada Jun. Kewujudan parasit ini tidak menimbulkan masalah untuk *M. rosenbergii* liar, jangkitan parasit atau pembawa penyakit boleh berlaku ketika memperkenalkan udang yang terjangkit ke dalam sistem kultur. Laporan ini merupakan laporan pertama tentang kumpulan parasit yang menjangkiti pada *M. rosenbergii* liar di semenanjung Malaysia.

**KATA KUNCI:** *Macrobrachium rosenbergii*, parasit, morfologi, prevalen, Malaysia.