



## FATTY ACID COMPOSITION OF KADAL PRAWN (*METAPENAEUS DOBSONI*, MIERS, 1878)

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In the Sri Lankan market, the prawn *Metapenaeus dobsoni* has not received a satisfactory attention with regard to nutritional value compared to the other available prawn species. As the biochemical composition of this species is still inadequately understood the present study principally entailed to explore the fatty acid composition of *M. dobsoni*. The prawns were obtained from Bolgoda lake area and the fatty acid profile was constructed from the standard GC/MS analysis.

The fatty acid profile obtained by GC/MS analysis for *M. dobsoni* contained 14 different types of fatty acids. It demonstrated a high amount of saturated fatty acid (SFA) (59.69%) followed by monounsaturated fatty acids (MUFA, 20.84%) and polyunsaturated fatty acids (PUFA, 18.46%). The major fatty acids identified in *M. dobsoni* were 16:0 palmitic acid (37.68%), 20:5n3 eicosapentaenoic acid (EPA, 15.76%), 18:1n7 vaccenic acid (14.39%), 17:0 margaric acid (11.92%) and 16:1n7 palmitoleic acid (6.46%) respectfully. In addition, the total value obtained for n-3 polyunsaturated fatty acids was higher than that of n-6 polyunsaturated fatty acids. The EPA/DHA ratio was

greater than 1 indicating that the EPA percentage is higher than the DHA. Both atherogenic index (AI) and thrombogenic index (TI) were below 1.

In conclusion, *M. dobsoni* revealed desirable qualities when the level of EPA, n3/n6 ratio, AI and TI are considered, and thus may provide many health benefits to the consumer. Although consumers may receive health benefits regarding high amount of MUFAs, particularly EPA, consumers who suffer from coronary illnesses should be cautious about consuming *M. dobsoni* due to its high SFA content.

**Keywords:** *Metapenaeus dobsoni*, Fatty acids, EPA, SFA, Prawns