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Functional feeding group (FFG) of aquatic macroinvertebrate in middle reach of Kerian River basin of north Malaysia Peninsula

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Abstract
Investigations on the distribution and abundance of aquatic macroinvertebrates functional feeding group (FFG) in Bogak, Kerian and Serdang rivers of Kerian River Basin showed that there were 120 genera from 59 families of 13 orders of macroinvertebrates. Predator mainly Odonata, Hemiptera and Coleoptera was the most common group and found in high densities in Bogak River (modified river) and Kerian River (main river). The second dominant group in both rivers was collector-gatherer (Diptera and Ephemeroptera) followed by scraper (mollusks). A different pattern of FFG distribution was observed in Serdang River (tributary of Kerian River). The most abundant group was collector-gatherer, followed by predator and scraper. In general, predator abundance showed a significant positive correlation with their prey abundance (other feeding groups). Predator abundance especially in Bogak and Kerian rivers, was significantly influenced by parameters such PO4 3-, NO3 -N and Zn. In Serdang River, collector-gatherer abundance was affected by water temperature, velocity, TSS, turbidity, Mn and Cu content in the sediments. However, all water parameters weakly influenced the abundance of FFGs in all locations. High abundance of collector-gatherer in Serdang River was related to enriched water contributed by anthropogenic waste from surrounding residential areas. In general, dominant FFG in each river reflected the influence of different environmental conditions and availability of food sources in the area. © Penerbit Universiti Sains Malaysia, 2019.

Author Keywords
Abundance; Aquatic Macroinvertebrates; Functional Feeding Group (FFG)

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abundance, activity pattern, dominance, environmental conditions, environmental effect, functional group, macroinvertebrate, mollusc; Malaysia, West Malaysia;
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