

**GASTROINTESTINAL HELMINTH PARASITES COMMUNITY IN
FRESHWATER FISHES AT INANAM RIVER, KOTA KINABALU**

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ABSTRACT

GASTROINTESTINAL HELMINTH PARASITES COMMUNITY IN FRESHWATER FISHES AT INANAM RIVER, KOTA KINABALU

The study was undertaken to determine the diversity of gastrointestinal helminth parasites community in freshwater fishes at Inanam River, Kota Kinabalu. A pool of 30 freshwater fishes were collected using nets from 3 different stations located at Kampung Ulu Kionsom, Kampung Dambai and Kampung Tatahan. The physico-chemical parameters of temperature, pH and dissolved oxygen were determined using Tri-Meter Portable Water Quality Tester and Dissolved Oxygen (DO) Meter respectively. Freshwater fishes captured and sampled for their gastrointestinal tract helminth were *Pethia ticto*, *Barbonymus schwanenfeldii*, *Periophthalmus gracilis* and *Rasbora tawarensis* and the species of gastrointestinal helminth found were from three different classes; Nematoda, Cestoda and Trematoda namely; *Spinitectus inermis*, *Acolpenteron catostomi*, *Contracaecum brachyurum*, *Bothriocephalus acheilognathi* and *Ascaris vesicularis*. The highest number of helminths discovered was the infestation of *Bothriocephalus acheilognathi* on the *Pethia ticto* at Kampung Tatahan. While for the highest prevalence were shown by *Acolpenteron catostomi* and *Spinitectus inermis* at Kampung Ulu Kionsom and *Bothriocephalus acheilognathi* at Kampung Tatahan respectively. Correlation between intensity of gastrointestinal helminth infestation with physico-chemical parameters; pH, temperature and dissolved oxygen of Inanam River, shown a medium negative relationship towards the intensity of helminth infestation with correlation coefficient, r of -0.570, -0.621 and -0.601 respectively. Wherever the physico-chemical parameters decrease the intensity of helminth infestation will be increased. These results provide evidence that variation of helminth community found in the freshwater fishes is linked and associated with variation of physico- chemical parameters that affect the aquatic productivity.