

FOOD HABITS OF *Poecilia reticulata* (GUPPY) IN NATURAL WATER BODIES OF SRI JAYEWARDENEPURA CANAL SYSTEM

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Poecilia reticulata (guppy) was introduced in the 1930s from Central America to dry zone and the Western province of the country as a bio control agent for mosquito larvae. As at present, it is reported to have distributed across North Western, Western and Southern provinces and this species inhabits a variety of aquatic habitats including streams, marshes, paddy fields as well as ditches in urban areas. However, its role and the efficacy in controlling disease transmitting vector mosquitoes as well as its effect on other fish species in their habitats is poorly understood. Hence, the present study was carried out to investigate the food habits of *P. reticulata*. *P. reticulata* were collected once a month from selected habitats located in Attidiya, Bellanwila, Rattanapitiya, Nawala, near Parliament ground and near Jayewardenepura hospital area for a period of 12 months from January to December 2016. Randomly collected 15 fish were analyzed for each sample site at each month. Collected sample were immediately preserved in 5% formalin solution and brought to the laboratory for their gut analysis. In the laboratory, total lengths (TL) of each fish were measured to the nearest 0.1 cm respectively and the stomach and gut were cut and opened. The food items were identified and counted using Sedgwick Rafter Cell, under the light microscope. Total number of food items per 1 ml dissolved gut was counted and percentages (%) of food items were calculated. The size range of collected specimens of *P. reticulata* investigated in the present study was 1.6 - 3.4 cm. Their feed mainly consisted of phytoplankton (35 %) (e.g. *Elakatothix genevensis*, *Elakatothix biplex*, *Closterium pritchardianum*, *Closterium moniliferum*, *Melosira granulata*, *Phacus longicauda*, *Peridinium raciborskii*, *Lyngbya limnetica*), zooplankton (23 %) (e.g. *Daphnia pulex*, *Dicranophorus australlensis*), adult mosquitoes of *Culex* sp. (4%), unidentified insect parts (12%) and fresh water debris (26%). The results indicated that they do not play any role as mosquito larvivorous fish in the Sri Jayewardenepura canal system. However, as they have consumed a small percentage of adult mosquitoes they may be contributing to wards mosquito controlling. More sampling is in progress to confirm these findings.

Keywords: *P. reticulata*, larvivorous fish, Natural water bodies, Gut contents, Food habits