Aspects of the biology and fishery of Malabar Sprat, *Ehirava fluviatilis* (Osteichthyes: Clupeidae) in the outflow canal of Left Bank sluice of Rajanganaya reservoir, Sri Lanka

Mihindukulasooriya I.D. and Amarasinghe U.S.

Department of Zoology, University of Kelaniya, Kelaniya GQ 11600, Sri Lanka

*Corresponding author (Email: kalpani.zoousa@kln.ac.uk)

Ehirava fluviatilis is of marine origin and has colonized some freshwater habitats of Sri Lanka. A small scale fishery of *E. fluviatilis* exists in the outflow canal of Rajanganaya reservoir in the North Central province of Sri Lanka. This study was carried out to investigate the biological aspects and the status of the fishery of *E. fluviatilis* in this location to document preliminary information on these aspects.

Sampling was done fortnightly from the landings. The theoretical weight of 50 mm fish calculated from length weight relationship (928 mg) was higher than that of the population in Parakrama Samudra (540 mg). *E. fluviatilis* in Rajanganaya reservoir feeds mainly on diatoms and copepods unlike the populations in Parakrama Samudra and Bolgoda Lake which feed on rotifers and copepods respectively. The male to female sex ratio was 1:1.4. Size at first maturity was 24.4 mm for males and 34 mm for females and was lower than that of estuarine population in Bolgoda Lake. Mean fecundity of female fish body weight of 0.26 g (SE 0.01 g) was 263.3 (± 14.9). Mean diameter of an egg was 270.8 (± 4.1) µm.

The fishery of *E. fluviatilis* at the left bank sluice of Rajanganaya reservoir is essentially small scale. Small meshed encircling nets are used to catch fish. There were 4-5 fishers engaged in the fishery during sampling period. Catch per net per day was estimated to vary from 0.01 kg to 2.84 kg per day and the total annual catch was 3720 kg. The fish catch seems to increase two to seven days after the closure of sluice gate.

From the length frequency data collected, growth parameters were estimated using the FiSAT software package. Asymptotic total length (48.9 mm), the growth constant (2.9 $year^{-1}$) and natural mortality (5.94 $year^{-1}$) indicated that the *E. fluviatilis* population in the fishing site has a high turnover rate.