



Taxonomic and Ecological Studies on Trematode Parasite *Euclinostomum heterostomum* (Clinostomidae: Euclinostominae) from Freshwater Fishes of River Tawi of Jammu Region (J & K)

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Abstract: The study was conducted during 2016-18 to ascertain the taxonomic status of trematode parasite *Euclinostomum heterostomum* along with the various physicochemical parameters affecting parasitic infestation in freshwater fishes of river Tawi. A total of 690 fishes comprising *Labeo rohita*, *Tor putitora*, *Channa punctatus*, *Puntius sophore*, *Mystus bleekeri*, *Xenentodon cancilia* and *Oreochromis mossambicus* were examined and 240 specimens of parasites were recovered. The trematode parasite revealed characteristics like elongated body, rudimentary anterior sucker, sub terminal acetabulum, 7-12 caecal diverticulae, paired testes positioned in the posterior part of the body and inter-testicular ovary. High prevalence percentage was 37.38 and 33.64% for first and second year respectively and the lowest in winter. The maximum mean intensity values was during winter season (5.5 and 2.85). Fluctuations were observed in various physicochemical parameters viz., water temperature (9° to 30°celsius), dissolved oxygen (5.5to 18.6 mg/L), free carbon dioxide (0 to 12.5) mg/L, carbonates (0 to 41.0 mg/L) and bicarbonates (107.1 to 241.4 mg/L) which revealed that the rate of parasitic infestation was positively correlated with water temperature, carbon dioxide, bicarbonates and negatively with pH, dissolved oxygen and carbonates.

Keywords: Fish, *Euclinostomum heterostomum*, Parasite, Trematode
