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ASSESSMENTOF WATER QUALITY AND FISH GROWTH IN MICRO-WATER SHEDS OF BANSWARA DISTRICT IN SOUTHERN RAJASTHAN

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ABSTRACT

Present study has been conducted to investigate the status of water quality and fish growth performance in selected micro-water sheds of Banswara district (Rajasthan). The mean values of water quality parameters fluctuated between, 26.35 – 32.95°C(Water temperature), 7.7 – 9.5(pH), 6.5 – 9.64 mg/l(DO), 0 – 0.1 ppt (Salinity), 0.0 - 15 mg/l(Free CO_2), 119.05-290.5 mg/l(TDS), 248 – 598 ms/Cm(Conductivity), 0.131 – 0.230 mg/l(Nitrate-nitrogen), 0.05 – 0.12 mg/l(Orthophosphate) and0 – 1.845 mg/l(Ammonia). These values of different water quality parameters indicated that the selected micro-water sheds were congenial and moderately productive from the fisheries point of view. The net weight gain of catla, rohu and mrigla varied between 855 to 1167.1gm, 699.66 to 908.12gm and 451.46 to 749.51gm respectively in different micro-water sheds. Whereas, the specific growth rate of catla, rohu and mrigla were 2.04-2.19, 2.02- 2.14, and 1.89-2.10 % respectively. Since, no feed and fertilizers were used to fish culture, in micro water sheds, therefore the observed growth can be considered satisfactory. Hence the input (feed, manuring, and fertilization) is recommended for higher returns.

KEYWORDS: Fish Growth, Water Quality, Micro-Water Sheds, Productivity, Physico-Chemical