

**LYTIC ACTIVITY OF GUT MICROFLORA OF THE
PROSOBRANCH *TELESCOPIUM TELESCOPIUM* L.,
PICHAVARAM MANGROVE, SOUTHEASTERN INDIA**

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ABSTRACT

The hind gut of *Telescopium telescopium* harboured more heterotrophic bacteria ($13.37 \text{ CFU g}^{-1} \times 10^3$) than the fore gut ($4.42 \text{ CFU g}^{-1} \times 10^3$) and mid gut ($12.65 \text{ CFU g}^{-1} \times 10^3$). The percentage contribution of amylolytic, proteolytic and lipolytic bacteria were 53.8%, 23.1% and 23.1%, respectively. Two amylolytic, proteolytic, and lipolytic strains were selected for analysis of enzymatic activity when cultured at specified levels of salinity, pH, tannin, Cu and Ni. All strains showed maximum enzymatic activity at a salinity range of 10-25 ppt, and alkaline pH. Tannin had a clear effect on the enzymatic activity at higher concentrations. But all strains showed difference in inhibition of activity at increasing concentrations of tannin up to 100 ppm. Copper was tolerated by some strains, even at the 100 ppm Cu level, although the activity was reduced compared to the control. Nickel had marked effect on most of the strains at concentrations higher than 50 ppm.