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Distribution of Freshwater Crabs in the Selected Eco-Tourism Sites of Libungan, North Cotabato, Philippines

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Abstract

Freshwater crabs are most abundant among all the Decapod crustacean groups and most ecologically important macro-invertebrate groups of inland waters worldwide. In this study, the selected eco-tourism sites of Libungan namely the Tinago falls, Simone falls, and Samveren falls were assessed to determine the distribution and abundance of freshwater crabs. Opportunistic method was employed to collect the samples. In each sampling area, the researchers collected samples using pitfall traps where wide mouth containers were placed in holes with the rim being level with the ground and by picking from both day and night collection. Only one species was recorded in the areas. This species was identified as *Isolapotamon mindanaoense* which is considered as a Philippine endemic. The findings indicated that there was no diversity of freshwater crabs documented in each sampling site. Among the three sampling areas, the distribution and abundance of freshwater crabs was found to be highest in the upstream portion of Tinago Falls (n=50). Presently, it was observed that total crab population in Tinago falls exhibited a positive association to water temperature, relative humidity, and air temperature while negative association exhibited with dissolved oxygen, water pH, and velocity. Similarly, total crab population in Simone falls exhibited positive association to relative humidity and water pH while negative association exhibited with dissolved oxygen, water and air temperature, and velocity. In Samveren falls, relative humidity and water temperature exhibited positive association while negative association exhibited to dissolved oxygen, air temperature, water pH, and velocity. The differences in the physico-chemical parameters implied that there was relative influence on the spatial distribution of freshwater crabs in eco-tourism sites of Libungan.

Keywords: Freshwater crabs, Eco-tourism sites, Libungan, Spatial distribution