

Population Dynamics of *Auchenoglanis Occidentalis* From Dadin-Kowa Dam, Gombe State, Nigeria

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Abstract : The population dynamics of *Auchenoglanis occidentalis* from the Dadin-Kowa reservoir were studied. Population dynamic parameters such as growth, mortality and recruitment patterns were analyzed using length frequency data over a 12-month period employing FiSAT II software. Findings revealed that LWR (b - constant) = 2.88, K = 0.72 -yr., L_{∞} = 40.91 cm and T_{max} = 3.57 years and $\Theta' = 3.14$. Mortality indices revealed that natural mortality (M = 1.39), fishing mortality (F = 0.22) and exploitation ratio (E = 0.14), $L_c/L_{\infty} = 0.48$, $E_{max} = 0.64$, while $L_{opt} = 26.4$ cm. Uni-modal recruitment peak observed with $L_m = 27.3$ cm. A restocking program is suitable to ensure its continuous existence as it seems to have a low population.

Keywords : fish population dynamics, *auchenoglanis occidentalis*, FISAT II, natural mortality

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