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Habitat Studies of Etheria elliptica in Some Water Bodies (River Ogbese and Owena Reservoir) in Ondo State, Nigeria

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Abstract : Etheria elliptica population is declining due to various human activities on the freshwater habitat. This necessitate the habitat study of the mussel in river Ogbese and Owena reservoir in Ondo state, Nigeria in order to know the status of the organism within the ecosystem. Thirty (30) specimens each from River Ogbese and Owena reservoir were sampled between May and August 2012. The meristic variables such as length, breadth, shell thickness and weight of the mussel were measured. Also, some physico-chemical parameters, flow rate and soil profile of the two rivers were studied. In River Ogbese, the weight, length, breadth and thickness variables obtained were; 49.73g, 8.42cm, 3.78cm and 0.53cm respectively. In Owena reservoir, the values were; 111.17g, 8.80cm, 6.64cm, 0.22cm respectively. The condition factor showed that the samples from Owena reservoir (K = 16.33) were healthier than River Ogbese (K = 8.34). Also, the length-weight relationship indicated isometric growth in both water bodies (Ogbese r2 = 0.68; Owena r2 = 0.66). In River Ogbese, the physico-chemical parameters obtained were; temperature (24.3oC), pH (7.12), TDS (72ppm), DO (3.2mg/l), conductivity (145µ), BOD (0.7mg/l). The mean temperature (24.1oC), pH (7.69), TDS (102ppm), DO (3.1mg/l), conductivity (183µ), BOD (0.8mg/l) were obtained from Owena reservoir. The soil samples values obtained from both water bodies are; River Ogbese –phosphorus; 78.78, calcium; 3.60, magnesium; 1.90 and organic matter; 0.17. Owena reservoir - Phosphorus; 3.34, calcium; 4.40, magnesium; 1.20 and organic matter; 0.66. The river flow rate was 0.22m/s for Owena reservoir and 0.26m/s for river Ogbese. The study revealed that Etheria elliptica in Owena reservoir and Ogbese were in good and healthy conditions despite the various human activities on the water bodies. The water quality parameters obtained were within the preferred requirements of the mussels.

Keywords : Etheria elliptica, mussels, Owena reservoir, River Ogbese
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