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ORGANOCHLORINE PESTICIDES CONTENT ANALYSIS OF UBEJI WETLAND, WARRI SOUTH DELTA NIGERIA FOR CAGE AQUACULTURE ADOPTION

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ABSTRACT

This study is an ex-post facto research that investigated the organochlorine pesticide content of Ubeji wetlands for its suitability for cage aquaculture adoption. The study answered 3 research questions and tested a hypothesis. In achieving these, the study area Ubeji wetland was mapped out into 5 research sampling cells. From each of the sampling cells water samples were collected with clean plastic sampling bottle, bulked, a composite drawn and fixed with HNO_3 and stored in ice cooled box for analysis. The analytical standards adopted were EPA 3870 and Steindwander and Shutfler1978 and the analytical instrument deployed for the determination of the pesticides investigated was Agilent 7000 series Triple Quadrupole GC/MS. The results obtained for the parameters are: endrin aldehyde; 0.71±0.22µg/l, endosulfansulphate, 3.50±0.22µg/l, DDT, 1.55±0.14µg/l, endrin ketone 0.56±0.13µg/l and methoxychlor, 2.32±0.20µg/l. The results of the pesticides content ofUbeji wetland were further subjected to test of significance with numerator 4 and denominator 20 at 0.05 level of significance. The F ratio calculated value was 6.33 while the F ratio critical value was 2.83 thus rejecting HO. The study recommended that cage aquaculture should not be adopted in Ubeji wetland in its present pollution status, the pollution source point should be identified and plugged and decontamination and remediation be embarked upon to return the wetland to healthy status for improved ecosystem services.

KEYWORDS: *Cage Aquaculture; Organochlorine Pesticides; Bioaccumulation, Human Healths*