

## **Ecological Effects of Channelization on a Tropical Marine Ecosystem: Impact on Intertidal Fish Communities in the Cross River, Nigeria**

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### **Abstract**

The impact of bulk density silt/clay sedimentation from dredging in the Cross River Estuary (S. E. Nigeria) on fish was assessed through the use of community structural analysis and ecological procedures emphasizing reproduction and feeding characteristics. The distinction among the channel, creeklet and pool fish communities decreased as the percentage of silt/clay substrate increased. The abundance of benthic invertivore and herbivore fish groups declined significantly, as the percentage of silt increased for the channel fish dwellers. This is because the simple and lithophilous reproduction category requires clean and coarse substrates for spawning. All species affected by increased silt sedimentation within a guild were significantly similar in trends of abundance. The ecological implication of these findings is the similar response of fish species of similar ecological niches to excessive turbidity.