NOTICE OF PUBLICATION

Title: Bias in Seine Sampling of Tilapia

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Date: 15 April 1992  
Publication Number: CRSP Research Report 92-44

Price: The CRSP will not be distributing this publication. Copies may be obtained by writing to the authors.

Abstract: Seine sampling is widely recognized by aquaculturists to produce upwardly-biased estimates of size. This bias is sometimes given as a reason for not including sampling data collected by seining when analyzing growth (i.e., only stocking and harvest data are used). Fisheries biologists recognize that many fish sampling methods produce biased size estimates, and considerable effort is expended to correct for bias, e.g., mesh selection curves. Aquaculturists, on the other hand, tend to either ignore the bias or, worse, ignore the supposedly biased data. This paper quantifies the degree of bias in size estimates of Nile tilapia (Oreochromis niloticus) that were obtained from seine samples. Additionally, the effects of fish size and sample size on precision of size estimates from seine samples are quantified. These quantifications are based on comparisons of seine sample data collected the day before harvest and the fish size at harvest.