NOTICE OF PUBLICATION

RESEARCH REPORTS
TITLE XII POND DYNAMICS/AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM

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.

This paper was published as a note in the *Journal of the World Aquaculture Society* 22(4):260-262, December 1991.

CRSP RESEARCH REPORTS are published as occasional papers by the Program Management Office, Pond Dynamics/Aquaculture Collaborative Research Support Program, Office of International Research and Development, Oregon State University, Snell Hall 400, Corvallis, Oregon 97331-1641 USA. The Pond Dynamics/Aquaculture CRSP is supported by the U.S. Agency for International Development under CRSP Grant No.: DAN-4023-G-00-0031-00.