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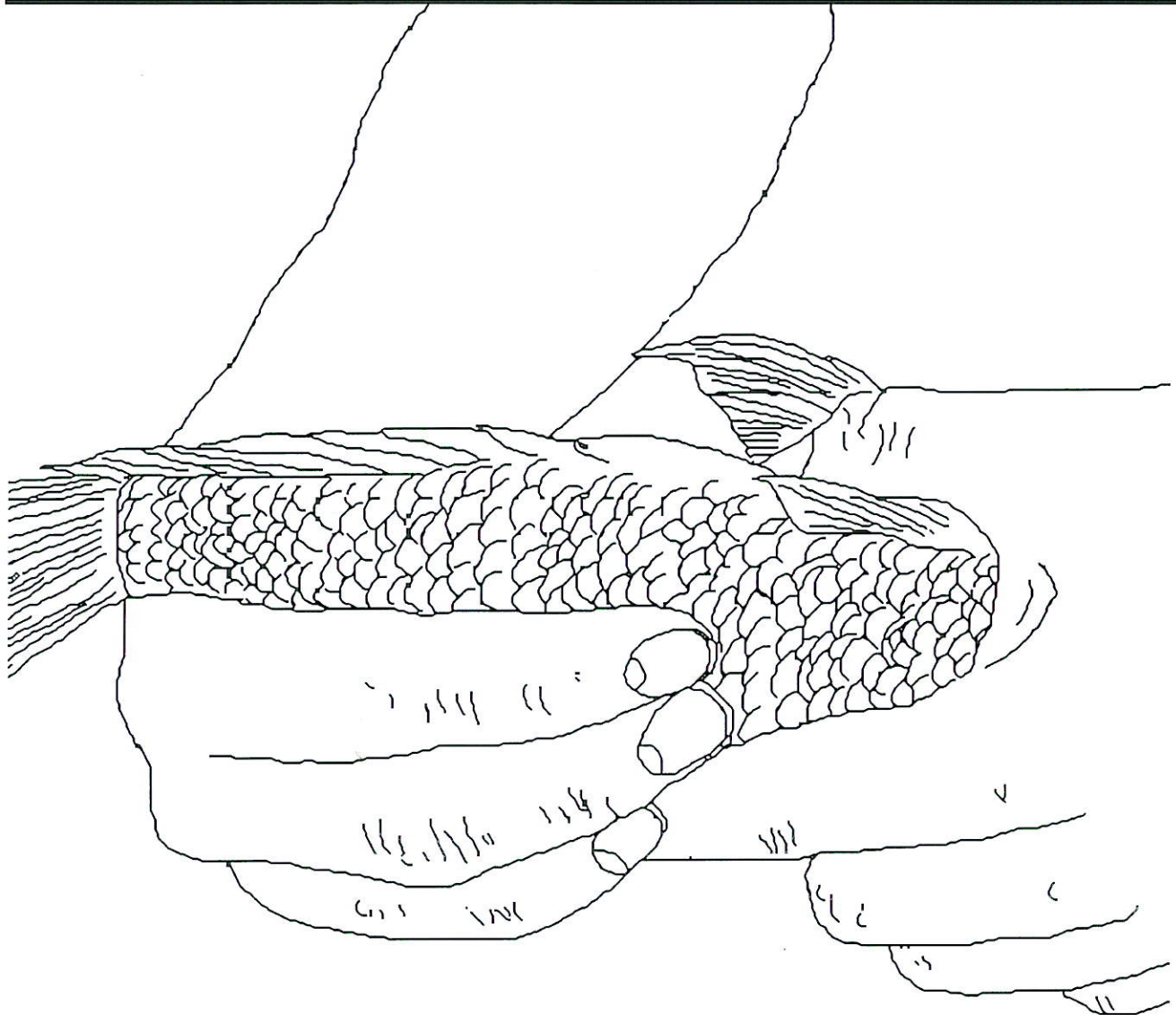
WATER HARVESTING AND AQUACULTURE  
FOR RURAL DEVELOPMENT

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CULTURE OF HAND-SELECTED  
MALE TILAPIA

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INTERNATIONAL CENTER FOR AQUACULTURE  
AND AQUATIC ENVIRONMENTS

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## INTRODUCTION

A major problem of pond-cultured tilapia is excessive reproduction, and subsequent stunting of fish due to overcrowding. To combat this problem a pond may be stocked with all-male fish. This technique is called monosex culture and is used when large fish are required by the market. Males are preferred because they grow almost twice as fast as females. The result is more protein and profit for the farmer.

## PROCEDURE FOR MANUAL SEPARATION OF SEXES

A farmer can readily distinguish male and female tilapia with practice. When tilapia reach about 10 cm in length (about 20 g) the sexes are distinguished by inspecting the genital papillae on the fish's underside (Figure 1).

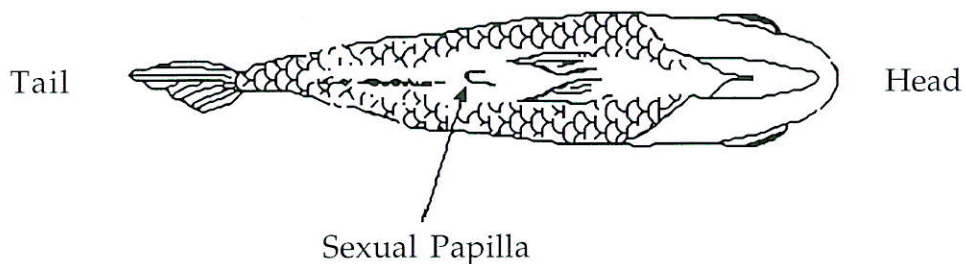


Figure 1: Ventral view of a tilapia.

Experienced workers can manually separate by sex about 2000 fish per day with an accuracy of 80 to 90%. Therefore, some reproduction will always occur. The method is tedious, stresses fish and is not 100% effective. However, production of manually sexed tilapia fingerlings for grow-out to market size can be accomplished by farmers with few financial resources and little fish culture experience. The procedure is illustrated in Figures 2 and 3.

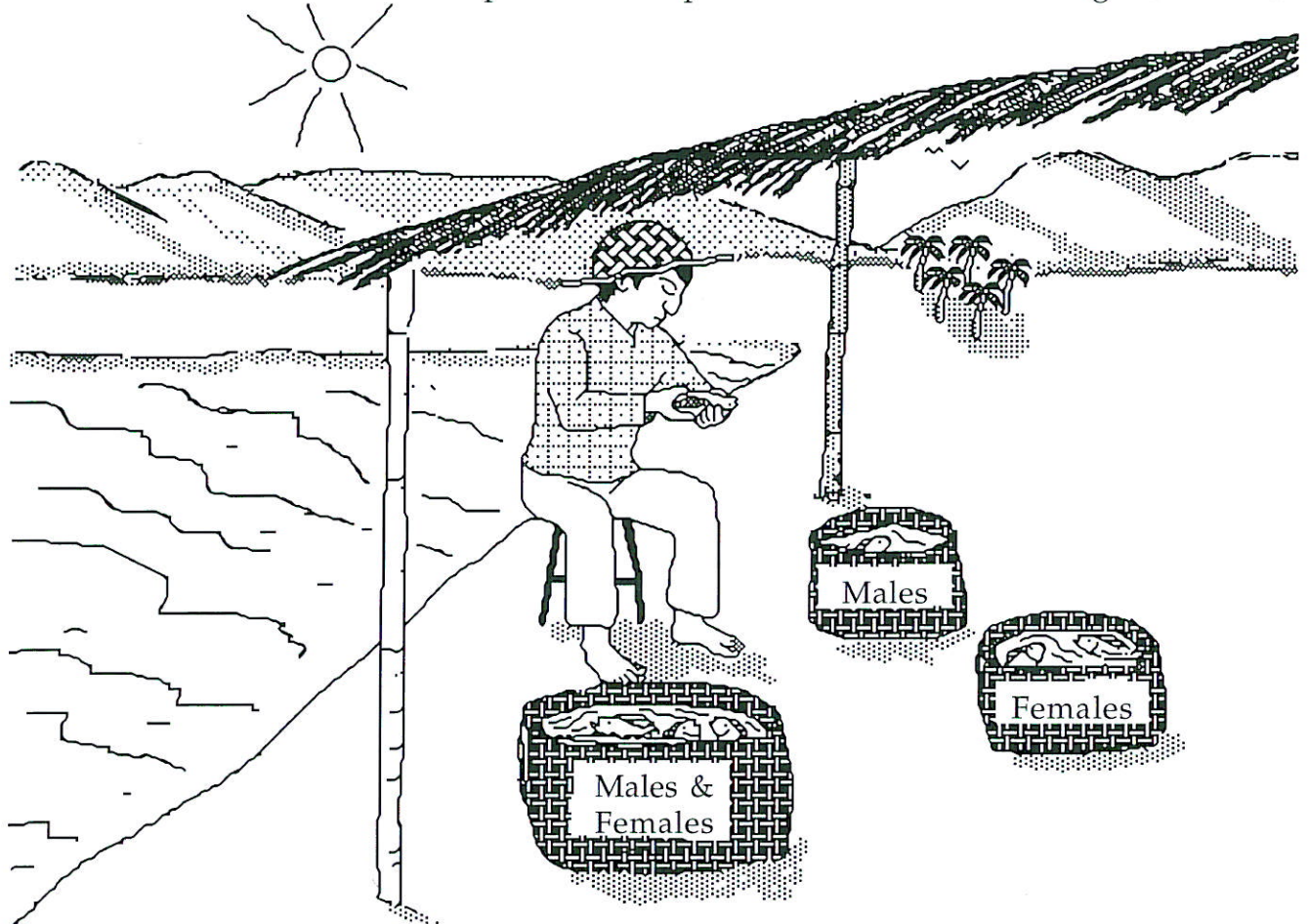


Figure 2: A farmer examining and sorting tilapia by sex.