

Food and Feeding Habits of *Epiplatys Senegalensis* (Pisces: Cyprinodontiformes; Cyprinodontidae) in a Back Water Pond in Benin City, Southern Nigeria

C. B. Ndome¹ and R. Victor²

¹ Department of Biological Sciences, University of Calabar, Nigeria;

² Department of Biology, College of Science, Sultan Qaboos University, al -Khod, Oman)

Abstract

Investigations were carried out on the food and feeding habits of *Epiplatys senegalensis* (Steindachner) 1870 in a back water pond along the Ikpoba river in Benin City, Nigeria. *E. senegalensis* was found to be morphologically well adapted to surface and pelagic feeding habits. The correlation between body size and (i) gape size and (ii) food size, were significant ($P < 0.01$). This fish was found to be a generalized feeder (omnivorous), feeding mainly on dipteran larvae, other insects, other benthos, algae, zooplankton and some detritus. Feeding habits varied with food type and size. The former also varied with the seasons. Detritus was, however, found to be ubiquitous in the environment. The forage ratios of the food items also varied with the seasons. Feeding activity increased from January to June, and no significant difference ($P < 0.05$) existed between the feeding activity of females and males. The condition factor of the fish increased from the dry to the rainy (wet) seasons with smaller size-classes of the fish in a better condition than the larger size-classes.

Introduction

Studies on the feeding habits of fish have received considerable attention all over the world. These investigations form the basis for the successful development of capture and culture fisheries (Blake, 1977; Adebisi, 1981; Muabe, 1992). Some of these fishes have ornamental value, and members of the genera *Lebistes*, *Panchax*, *Sarotherodon*, *Poecilia*, *Tilapia* and *Gambusia* have been used for this purpose (Cust & Bird, 1977). Others are larvivorous and some workers have attempted to use them as bio-control agents for disease vectors of aquatic larval stages such as mosquitoes (Lindberg, 1974; Menon & Rajagopalan, 1978).

The applied problem of using the correct fish species either for fish culture, ornamental purpose or larval control requires fundamental information on the feeding ecology of the fish in question. Apart from

the general contribution it makes to a clearer understanding of the complex aquatic environment (Corbet, 1961), significantly important is the information on nutrition it provides to support man's efforts to propagate fish in the most efficient manner possible (Welcomme, 1979).

With the paucity of published information on such studies in the tropics, it becomes difficult to know the extent to which the existing aquatic resources are being utilized in these sub-regions. The present investigations were, consequently, designed to look at the food and feeding habits of a tropical larvivorous cyprinodont, *Epiplatys senegalensis* (Steindachner) 1870, in a back water pond in southern Nigeria.

Materials and methods

The study area is located along the Ikpoba river at Ugbowo, north-west of Benin City