

ESTUARINE CAGE CULTURE OF HYBRID STRIPED BASS

L. Curry Woods III,¹ J. Howard Kerby
and Melvin T. Huish
North Carolina Cooperative Fishery Research Unit²
P.O. Box 5577
North Carolina State University
Raleigh, NC 27650

ABSTRACT

Nine 0.5-m³ cages were stocked with three densities (100, 150 and 200/m³) of female striped bass X male white bass hybrids that averaged 44.6 g on 10 April 1981. Fish received a dry, floating commercial trout diet ad libitum 2 or 3 times daily. Survival to harvest (22 November 1981) for all densities averaged 95% with a mean weight per fish of 333 g. Growth of the hybrids was positively correlated with temperature, and greatest growth occurred during the period of highest water temperatures. Growth was negatively correlated with salinity. The mean coefficient of condition (K) was approximately 1.5 for the hybrids. No significant differences ($P \leq 0.05$) were found in terms of growth in length, weight or condition of the hybrids, between densities. Biomass at harvest averaged 46.6 kg/m³ with a maximum of 62.2 kg/m³ for a high density replicate. A combined feed conversion ratio of dry feed to wet fish weight was 1.58:1. Results demonstrate the potential of the hybrid striped bass for use in aquaculture and indicate that the hybrids can be grown to commercial size within 18 months in small cages at densities as high as 200 fish/m³. Additional information was obtained for striped bass held in cages at a density of 50 fish/m³.

INTRODUCTION

Efforts to produce fish in cages in the United States initially was concerned with channel catfish (Lewis 1969; Schmittou 1969, 1970; Collins 1970, 1971, 1972a; Lovell 1973; Kelley 1973; Konikoff and Lewis 1974; Hill 1975), but soon spread to a variety of other species, including tilapia (Armbruster 1972; Pagan 1975; Galbreath 1979), rainbow trout (Séguin 1970; Collins 1972b; Tatum 1973; Hahn 1974; Kilambi et al. 1977;

¹Present address: Crane Aquaculture Facility, P.O. Box 1475, Baltimore, MD 21203.

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