Also, additional research concerning flathead catfish culture is planned by our Laboratory for the 1962 season.

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A COMPARISON OF PRODUCTION OF ALBINO AND NORMAL CHANNEL CATFISH

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ABSTRACT

Albino (golden) and normal channel catfish were compared in feeding experiments during a 346-day period. There was no difference in rate of growth, but the percentage of survival was 94.2 for the normal catfish and 81.1 for the albinos. Fishing success was similar for the two.

INTRODUCTION

Albino channel catfish, called golden catfish by Nelson[1], have been observed rather frequently among fry hatched at the Auburn University Agricultural Experiment Station during the last 3 years. Although none of the brood fish had the albino appearance, the trait was obviously present among some individuals in this group of fish since some of the pairings produced as high as 25 percent albino fry. These brood fish were raised from fingerlings furnished for experiments by Ben Nelson, Osage Springs Minnow Farm, Rogers, Arkansas, in 1955.

Since there was a considerable amount of interest in albino channel catfish among fishermen, fishery biologists, and commercial producers, experiments were conducted to compare the survival and growth of albino and normal channel catfish. Each of two one-acre ponds was stocked December 4, 1959, with 1,000 albino and 1,000 normal channel catfish fingerlings between 3 and 6 inches total length. Largemouth bass fry were added May 19, 1960, at the rate of 100 for each pond to control possible contamination by other species of fish. No fertilization was used, but pelleted Auburn No. 2 fish feed[2] was added 6 days a week as follows:

Dates	*Pounds Fed Per Acre Per Day*
Feb. 1-Mar. 31	2
Apr. 1-Apr. 30	5
May 2-July 9	10
July 11-July 30	15
Aug. 1-Oct. 3	25
Oct. 4-Nov. 10	30

The ponds were drained November 14-15, 1960. Production data are given in Table 1. The main noticeable difference between the albinos and the normal channel catfish was the lower percentage of survival of

[1] Nelson, Ben. Propagation of Channel Catfish in Arkansas. Proc. Tenth Ann. Conf. Southeast. Assoc. Game and Fish Comm. 1957:165-168.

[2] Prather, E. E. Further Experiments on Feeds for Fathead Minnows. Proc. Twelfth Ann. Conf. Southeast. Assoc. Game and Fish. Comm. (1958), 1959:176-178.

albinos, 79.8 percent in one pond and 82.5 in the other, whereas 94.9 and 93.5 percent of the normal catfish survived. Thus, the average mortality of the albinos was higher than that of the normal catfish. The reasons for higher mortality among the albinos are unknown, but it is suspected that the albinos are more susceptible to predators. This higher mortality rate is a distinct disadvantage of the albinos. There appeared to be no real difference in growth rate between the albinos and the normal fish. In one pond the albinos had an average weight gain of 0.04 pound more than the normal fish, whereas in the other pond their average weight gain was 0.06 pound less than the normal fish. Thus, from the standpoint of growth alone, albinos appear just as desirable as the normal channel catfish.

Albinos were caught on baited hooks just as easily as the normal fish.

TABLE 1.

PRODUCTION DATA COMPARING ALBINO AND NORMAL CHANNEL CATFISH WHEN STOCKED TOGETHER IN TWO PONDS.

	Pond E-2		*Pond E-4*	
	Albino	*Normal*	*Albino*	*Normal*
Date stocked	December 4, 1959		December 4, 1959	
Date drained	November 14, 1960		November 15, 1960	
Number stocked	1,000	1,000	1,000	1,000
Number recovered	798	949	825	935
Percent survival	79.8	94.9	82.5	93.5
Pounds stocked	22.0	21.4	22.4	21.8
Pounds recovered	766.2	874.6	844.1	1,007.9
Pounds gained	744.2	853.2	821.7	986.1
Average weight fish stocked (pounds)	0.02	0.02	0.02	0.02
Average weight fish recovered (pounds)	0.96	0.92	1.02	1.08
Gain in average weight, pounds	0.94	0.90	1.00	1.06

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FORAGE FISH PREFERENCE AND GROWTH RATE OF LARGEMOUTH BLACK BASS FINGERLINGS UNDER EXPERIMENTAL CONDITIONS

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ABSTRACT

Experiments to determine the forage species preference of largemouth black bass fingerlings and a few larger bass are described. Data on the amount of food consumed, rate of growth and food conversion are presented. Forage minnows included were goldfish, *Carassius auratus* (Linnaeus), fathead, *Pimephales promelas* (Rafinesque) and bluegill, *Lepomis macrochirus* (Rafinesque). While there was evidence of considerable individual variation in the species of forage minnow preferred, the bass in the experiments preferred fatheads more frequently than the other species, goldfish were second choice and bluegills were last. The degree of preference between bluegills and goldfish did not appear to be great for the limited number of bass included. Food conversion was best on a fathead or bluegill diet.

Where four larger bass, 0.4-0.5 pound in size, were fed equal amounts of bluegills and fathead minnows, one fish showed no preference between the species, two preferred fatheads to a moderate degree while one showed a strong preference for fatheads.

INTRODUCTION

The species of forage minnow used to grow largemouth black bass (*Micropterus salmoides*, Lacepede) brood stock to spawning size varies