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FOOD OF 136 LONG-NOSED GAR (Lepisosteus osseus oxyurus)

FROM WATERS IN SOUTHERN MICHIGAN

by

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This report is based on the examinations of the food contained in the stomachs of 136 long-nosed gar. The stomachs of sixty-eight additional specimens were empty. These gars were collected by employees of the Conservation Department, including the Institute for Fisheries Research, during the months of June, July, and August from ten lakes and from Stearn's Bayou on the Grand River (Table 1). Some of the specimens were speared, others netted.

The food (total volume 893 cc.) of these specimens is almost entirely composed of fishes (Table 2). The volume of the fishes eaten was almost two-thirds comprised by game species (yellow perch and sunfishes) and a little more than one-third by other fishes, mostly forage species (minnows, darters, etc.). The game fishes present were twenty-three yellow perch, seventeen sunfishes and seven others including bullheads and remains of unidentified members of the sunfish and bass family.

Although game fishes make up a large proportion by volume of the food of these specimens, they average only about one-third of an individual

TABLE 1. COLLECTION DATA FOR THE LONG-NOSED GAR FROM
WHICH FOOD WAS ANALYZED

County	Lake and Number of Specimens	Month and Year	Collector
Antrim	Round Lake (2)	Aug., '31 - 2	Jones and Kuhne - 2
Branch	North Lake (1)	Aug., '39 - 1	P. H. Barrett - 1
Hillsdale	Baw Beese Lake (4)	June, '31 - 4	I. F. R. - 4
	Long Lake (2)	July, '31 - 2	E. R. Kuhne - 1 Ashley and Eschmeyer - 1
Lenawee	Round Lake (7)	June, '37 - 7	L. T. Harkness - 7
Oakland	Cass Lake (100)	June, '30 - 100	Cons. Dept. - 100
	Liggetts Lake (2)	July, '30 - 2	Cons. Dept. - 2
	Long Lake (13)	July, '30 - 13	Cons. Dept. - 13
	Sugden Lake (4)	July, '30 - 4	Cons. Dept. - 4
Ottawa	Stearns Bayou (1)	July, '39 - 1	O. Falk - 1

per gar. This, coupled with the fact that game species were present in only one gar out of every four, suggests that the high value for percentage composition by volume over-emphasizes the significance of game fishes in the food of the gars in this series. The average size of the perch eaten being between four and five inches and the sunfishes being about three inches aids in understanding the volumetric predominance of these forms. It is obvious that additional data are needed on food and food relationships of this gar in order to enable formulation of the proper management program for this species.

TABLE 2. FOOD OF 136 LONG-NOSED GAR FROM WATERS IN
SOUTHERN MICHIGAN

Food Item	Volume	Average % of Total Volume	Frequency Number	Average Frequency %
Game fish	534.6	59.9	34	25.0
Other fish	326.3	36.5	98	72.1
Fish remains	21.1	2.4	21	15.4
Crayfish	10.3	1.2	3	2.2
Insects	0.7	0.1	6	4.4

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