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FOOD OF BOWFINS (AMIA CALVA) FROM THE MUSKEGON RIVER

AT HOUGHTON LAKE, ROSCOMMON COUNTY, MICHIGAN

by

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This report on the food of bowfins (dogfish) is based on the examination of the stomachs of forty-six specimens. The specimens were obtained and stomachs preserved by W. F. Carbine of the Institute staff or by his assistant, H. Bowditch, in connection with the operation during the spring and early summer of 1939 of a two-way fish weir installed in the Muskegon River about two hundred yards below the county dam at the outlet of Houghton Lake. Bowfins in this series on which measurements were obtained ranged from about 21 1/2 to 30 1/2 inches in total length. The fish were collected from May 11 to June.

Twenty-two of the stomachs were empty and most of the remaining twenty-four contained only a little food. The paucity of food is at least in part due to the fact that the fishes may have been in the traps of the weir for several hours before their stomachs were removed and saved for this study. However, it is generally difficult to find much food in dogfish stomachs regardless of how the fish are taken. Furthermore, the food found may not be typical of natural feeding by this fish since it may represent, at least in part, some organisms which strayed into the weir

traps and which would not otherwise have been eaten.

In Table I are given details and a summary of the food contained in twenty-four stomachs.

Considering the predaciousness generally attributed to the dogfish, the low incidence of game fish is surprising indeed.

TABLE I
FOOD OF TWENTY-FOUR BOWFINS FROM THE MUSKEGON RIVER

Bowfin Number	Percentage by volume and actual number of individuals (in parentheses) in each stomach								Total Volume Of Food (cc.)
	Pumpkin- seed	Yellow Perch	Minnows	Stickle- backs	Carrion	Frogs	Crayfish	Insects	
4	...	100 (3)	...	...	...	...	Tr. (1)	...	57.0
5	100 (1)	...	0.1
6	100 (1)	...	...	...	...	0.7
7	...	Tr. (1)	...	...	...	...	100 (1)	...	2.6
8	100 (1)	...	0.1
9	...	32 (1)	68 (11)	...	...	...	...	...	2.5
10	100	...	...	...	1.3
11	100 (1)	...	0.6
13	Tr. (1)	100 (1)	0.3
14	100 (1)	...	0.5
15	100 (1)	...	1.1
16	100 (1)	...	0.2
17	100 (10)	0.7
18	100 (1)	...	...	24.0
19	100 (1)	...	...	...	...	...	...	Tr. (11)	3.0
20	100 (1)	...	5.0
21	100	...	Tr. (1)	Tr. (1)	1.2
22	...	100 (3)	...	...	...	...	Tr. (1)	...	17.5
23	...	100 (1)	...	...	...	...	...	...	6.5
24	100 (1)	...	2.5
25	100 (1)	...	Tr. (1)	1.2
26	100 (1)	...	0.2
27	...	44 (1)	...	...	...	...	56 (2)	...	27.0
Average or Total	4.3%	16.3%	3.0%	4.3%	8.7%	8.7%	45.9%	8.7%	156.9 cc.

* Bowfin number 12 contained a scale of a large carp or sucker.

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