

Original: Fish Division  
cc: Mr. Ruhl  
Mr. Bush

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MICHIGAN DEPARTMENT OF CONSERVATION  
COOPERATING WITH THE  
UNIVERSITY OF MICHIGAN

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February 9, 1939

REPORT NO. 513

ANALYSIS OF FISH CATCH ON VANDERCOOK AND SHARPES LAKES,  
SUMMIT TOWNSHIP, JACKSON COUNTY, MICHIGAN,  
WITH NOTES ON A FEW OTHER LAKES VISITED

Lawrence H. Bush, 813 Cass Avenue, Jackson, Michigan, personally and voluntarily conducted a creel census on Vandercook and Sharpe Lakes during the month of January, 1938. With his report on this census, he wrote to the Institute for Fisheries Research, "I can add my support to your contention that winter fishing is not harmful to the sport in summer; because due to past experience and information gained from talking with other fishermen I find that bluegills and black bass hold the predominating places in summer that are filled by perch and northern pike in Vandercook and Sharpe Lakes during the winter."

Mr. Bush estimates that 65% of the fishermen on Vandercook Lake were contacted, and their catches recorded.

The following data on fishing on Vandercook Lake, the month of January, 1938, shows:

Number of fishermen contacted	165
Number of hours	389 3/4
Number of legal sized fish taken	283
Number of undersized fish taken	273
Number of fish taken on hook and line	541
Number of fish taken by spear	15
Catch per hour	0.7
Catch per fisherman	1.7
Average hours per fisherman-day	2.3

	<u>Catch by Species</u>	
	<u>Legal Sized</u>	<u>Undersized</u>
Northern Pike	3	
Perch	166	269
Bluegills	2	
Rock bass	93	4
Calico Bass	4	
Cisco	9	
Sucker	1	
Dogfish	5	
Total	283	273

Species	<u>Catch by Species and Method</u>	
	<u>Hook and Line</u>	<u>Spear</u>
Perch	435	
Bluegills	2	
Rock Bass	97	
Calico Bass	4	
Cisco	3	6
Northern Pike	...	3
Dogfish	...	5
Sucker	...	1
	541	15

On Sharpes Lake, Summit Township, Jackson County, it was estimated that 90% of the fishermen were contacted and their catches recorded.

The following fishing data are reported by Mr. Bush on Sharpes Lake for the month of January, 1938:

Number of fishermen contacted	171
Number of hours	480
Number of legal sized fish	193
Number of undersized fish	56
Number of fish taken by hook and line	236
Number of fish taken by spear	13
Catch per hour	0.3
Catch per <del>hour</del> fisherman	1.1
Average number of hours per fisherman-day	2.9

Species	<u>Catch by Species</u>	
	<u>Legal Sized</u>	<u>Undersized</u>
Northern Pike	52	19
Perch	108	36
Rock Bass	6	
Calico Bass	16	
Largemouthed Bass	...	1
Garfish	6	...
Dogfish	5	...
Total	193	56

Summary of a Creel Census Covering Seventy-One Days  
 During the Winter Season of 1937 and 1938 - Conducted  
 by Lawrence H. Bush of Jackson, Michigan

Vandercook, Sharpes, Cove, and Browns Lakes in Summit Township,  
 Jackson County; Ackersons, Cranberry, and School House Lakes in  
 Napoleon Township were the lakes visited by the census operator.

	Number of Days Visited	Number of Days Contacts Were Made
Vandercook	69	64
Sharpes	71	59
Cove	12	12
Browns	3	3
Ackersons	2	2
Cranberry	2	2
School House	1	1

In the following tables Vandercook and Sharpes Lakes will be given  
 individually, and the lakes visited comparatively few times will be grouped.

Vandercook Lake

Number of fishermen	370 - All from Jackson County
Number of hours	1,042
Legal sized fish caught	1,158
Undersized fish taken	1,010
Fish taken on hook and line	2,153
Fish taken on spear	15
Catch per hour	1.1
Catch per fisherman	3.1
Average hours per fisherman-day	2.8

An estimated 80% of the fishermen on the lake were contacted.

	<u>Catch by Species and Method</u>			
	Legal sized fish caught	Undersized fish taken	Fish taken on hook and line	Fish taken on spear
Yellow Perch	754	924	1,678	...
Rock Bass	366	67	433	...
Calico Bass	13	2	15	...
Ciscoes	9	...	3	6
Northern Pike	6	4	8	2
Dogfish	5	...	...	5
Bluegills	3	...	3	...
Suckers	1	...	...	1
Garfish	1	...	...	1
Sunfish	...	2	2	...
Largemouthed Bass	...	11	11	...
Total	1,158	1,010	2,153	15

Sharpes Lake

Number of fishermen	206-All Jackson County
Number of hours	462 $\frac{1}{4}$
Legal sized fish caught	228
Undersized fish taken	65
Fish taken on hook and line	280
Fish taken on spear	13
Catch per hour	0.5
Catch per fisherman	1.1
Average hours per fisherman-day	2.2

Catch by Species - and Method

	Legal sized fish caught	Undersized fish taken	Fish taken on hook and line	Fish taken on spear
Yellow Perch	124	43	167	...
Northern Pike	63	22	83	2
Calico Bass	20	...	20	...
Rock Bass	10	...	10	...
Garfish	6	...	...	6
Dogfish	5	...	...	5
<b>Total</b>	<b>228</b>	<b>65</b>	<b>280</b>	<b>13</b>

An estimated 85% of the fishermen over this period were contacted.

Fishing Data on the Five Less Visited Lakes

	Cove	Ackersons	Browns	Cranberry	School House
Number of fishermen	26	15	4	10	1
Number of hours	85	38	6	22 $\frac{1}{2}$	2
Legal sized fish caught	12	34	...	...	...
Undersized fish taken	1	12	...	...	...
Fish taken on hook and line	13	44	...	...	...
Fish taken on spear	...	2	...	...	...
Catch per hour	0.14	0.89	...	...	...
Catch per fisherman	0.46	2.2	...	...	...
Average hours per fisherman-day	3.3	2.5	1.4	2.2	2.0

Catch by Species and Method on the Five Less Visited Lakes

Species	Cove Lake			
	Legal sized fish caught	Undersized fish caught	Fish taken on hook and line	Fish taken on spear
Yellow Perch	12	1	13	...
Ackersons Lake				
Yellow Perch	32	12	44	...
Northern Pike	2	...	...	2
Browns Lake				
No fish taken				
Cranberry Lake				
No fish taken				
School House Lake				
No fish taken				
Total	<hr/> 46	<hr/> 13	<hr/> 57	<hr/> 2

Too few contacts were made on these lakes to merit a percentage estimate.

The data supplied by Mr. Bush support his contention that yellow perch dominate the winter catch in Vandercook Lake and that yellow perch and northern pike are the most frequently caught species at this season in Sharpes Lake. As these two species are "cool water" fish and are not taken in southern lakes to any extent during the summer, it seems obvious that winter fishing on these lakes as practiced during the season of 1938 should not damage summer fishing if, as stated by Mr. Bush, bass and bluegills are of greatest importance in summer. Indeed, the removal of perch, pike, rock bass and calico bass in winter fishing may result in more bluegills

and bass being available to summer anglers since all of these winter caught species are highly predacious. Seldom can the stomach of a winter caught perch, pike, etc. be opened without finding the remains of young game fish--usually young bluegills.

Mr. Bush is to be highly commended for the excellent job which he did in taking and tabulating the census data on these lakes. The evidence which he has submitted further substantiates the Institute's contention that there is a place for winter fishing in Michigan's outdoor recreation scheme and that the effects of such fishing may not adversely affect summer angling.

INSTITUTE FOR FISHERIES RESEARCH

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