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UNIVERSITY OF MICHIGAN ANN ARBOR, MICHIGAN

HOW HOW

November 11, 1931

Report No. 102

PRELIMINARY STATEMENT OF BASS TAGGING EXPERIMENT IN WINTERGREEN LAKE, CALHOUN COUNTY, MICHIGAN

On August 11, Mr. Westerman wrote to call attention to the favorable lay-out, for carrying on certain fish cultural operations and experiments, at Wintergreen Lake, on the Kellogg Bird Sanctuary, near Gull Lake. Owing to the illness of the Director of the Institute, no action was taken on the matter. About 500 bass were held at the Hastings Hatchery for this experiment. By the time it became possible to carry on the field work, which it was thought desirable should be done by a member of the Institute staff, only about 150 of these bass remained. However, probably due to cannibalism, some of the fingerlings had then grown to a very large size, which is an advantage.

Dr. Greeley undertook the tagging of the bass on October 27 and 28. All the bass were tagged with fingerling tags. After being measured and tagged the bass were released in two approximately equal lots, in separate portions of the lake. A rough sketch hereto attached shows the location of these planting stations, which are designated A and B. Some scale samples were saved.

Points of interest which we hope may develop from recaptures are:

- 1. How fast do the bass grow?
- 2. Are the marks interpreted as winter lines on the scales true indications of growth?

3. How widely do fingerlings disperse over a small lake?

The last point is one of especial interest which we hope to investigate further in Wintergreen Lake and in other lakes, large and small, using fish of several species.

One wild-caught fish was also measured, tagged and released.

In connection with this and other prospected experiments, we hope to work in a regular survey of Wintergreen Lake, this fall or next spring. Several lines of investigation, to which the lake appears well adapted are:

- (1) Study of growth rate and migration of planted large-mouthed bass.
- (2) A similar study of wild large-mouthed bass, bluegills, perch, and bullheads.
- (3) Study of the effect of large numbers of waterfowl on fish life. The large quantity of droppings from the birds have a possibility of increasing fish life through fertilization of the waters and there are also possibilities of detrimental effects.

We append hereto a list of the fish tagged in Wintergreen Lake:

LARGE-MOUTHED BASS TAGGED AT WINTERGREEN LAKE, OCTOBER 27-28, 1931

AGE OF FISH ABOUT 5 MONTHS. TAG ATTACHED TO LEFT OPERCLE EXCEPT AS

OTHERWISE NOTED.

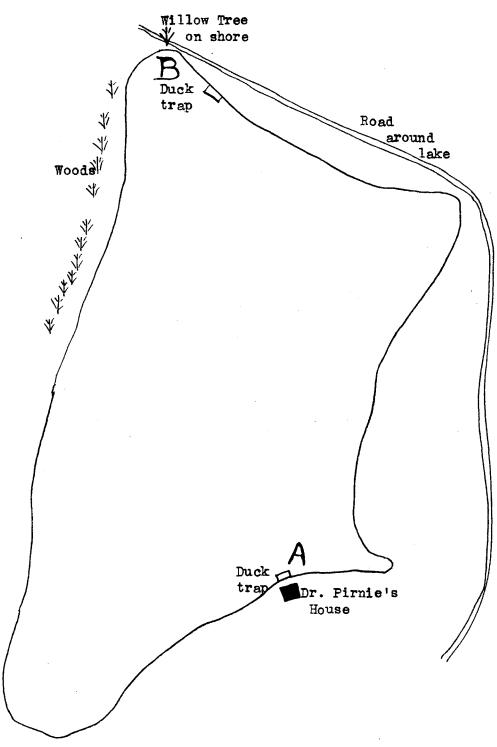
A. FISH FROM HASTINGS HATCHERY. POINT OF RELEASE A (see lake sketch with Report 102).

Tag No.	Size	Remarks	Tag No.	<u>Si ze</u>	Remarks
18601	3 1/4		18647	6 7/8	
18602	3 1/2		18648	6 3/8	
18603	3 1/2 4		18649	7 5/8	
18604	3 5/8		18650	3 3/4	
18605	3 3/4		18651	3 3/8	
18606	5 3/8	Tag on left sub-opercle	18652	3 3/8 4 1/8	
18607	5 3/8 7 3/4	п п п	18653	6 1/2	
1860\$	7 3/4	£1 11 11 11	18654	3 3/4	
18609	6 3/4	H H H	18655	7 3/4	
18610	7 3/4	n u u	18656	7 3/4 6 1/8	
18611	7 1/2	H H H	18657	3 3/8 6 1/2	
18612	7 1/2	# B B #	18658		
18613	8 1/8	H H H	18659	g	
18614	No tag		18660	7	
18615	No tag		18661	8 1/2	
18616	8 1/8	Tag on left sub-opercle	18662	8 1/2	_
18617	8	Clinched poorly	18663	7 3/4	Clinched poorly
18618		On same fish as 18617	18664		On same fish as 18663
18619	g		18665	8 1/2	
18620	5 5/8		18666	7 1/2	
18621	No tag		18667 18668	7 1/4	Clinched poorly
18622	6 1/2				On same fish as 18667
	\ _'/~		THE WITH WITH A ST. A.		
18623	4 5/8	в.	FISH FROM HAST		ERY. POINT OF RELEASE B
18624	6 3/8	В.	FISH FROM HAST		sketch with Report 102)
1862 4 18625	6 3/8 4	В.	FISH FROM HAST	(see lake	sketch with Report 102)
18624 18625 18626	6 3/8 4 6	В.	Tag No-		_
18624 18625 18626 18627	6 3/8 4 6 6 1/2	В.	Tag No.	Size	sketch with Report 102) Remarks
18624 18625 18626 18627 18628	6 3/8 6 6 1/2 3 5/8	В.	<u>Tag No-</u> 18669	(see lake	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629	6 3/8 6 6 1/2 3 5/8 3 3/4	B.	<u>Tag No-</u> 18669 18670	Size 6 1/8	sketch with Report 102) Remarks
18624 18625 18626 18627 18628 18629 18630	6 3/8 6 1/2 3 5/8 3 3/4 3 1/2	В.	<u>Tag No.</u> 18669 18670 18671	Size 6 1/8	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631	6 3/8 6 1/2 3 5/8 3 3/4 3 3/4	В.	<u>Tag</u> No. 18669 18670 18671 186 <i>7</i> 2	Size 6 1/8 5 3/8	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632	6 3/8 6 1/2 5/8 3 3/4 3 1/2 3 1/2	В.	<u>Tag No-</u> 18669 18670 18671 18672 18673	Size 6 1/8 5 3/8	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633	6 3/8 6 1/2 5/8 3 3/4 3 1/2 3 1/2	В.	<u>Tag</u> No - 18669 18670 18671 18672 18673	Size 5 1/8 5 3/8 4 3 7/8 3 5/8	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633	6 3/8 1/2 5/4 5/4 3/2 3/2 3/2 3/8 5/8	B.	Tag No- 18669 18670 18671 18672 18673 18674 18675	Size 6 1/8 5 3/8 4 3 7/8 3 5/8 4 1/8	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633	6 4 6 6 3 3 3 1/2 5/4 2 8 4 2 1/4 2 8 8 5 5/8 5/8 2 8 4 2 4 2 8 8 8 5 5/8	B.	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676	Size 5 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18634 18635	6 4 6 6 3 3 3 1/2 5/4 2 8 4 2 1/4 2 8 8 5 5/8 5/8 2 8 4 2 4 2 8 8 8 5 5/8	B.	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676	Size 5 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18634 18635 18634	64663333335633 1/842428888 1/842428888 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8		Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18677	Size 5 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18634 18635 18636	64663331/8 1/8424288 3/424288 5/8 5/8 5/8	Clinched poorly	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18677 18678	Size 5 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18634 18635 18636 18637	6 4 6 6 3 3 3 1/8 1/8 4 2 4 2 8 5 1/8 3 3 3 3 5 5 8 8 3 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3		Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18677 18678 18680	Size 6 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2 3 3/4 5 5/8 3 7/8 3 7/8	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18637 18637 18638 18639 18640	6466333333356337 8 1/8 1/8 28 1/8 28 1/8 28 1/8 28 1/8 28 1/8 28 1/4	Clinched poorly	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18676 18679 18680 18681	Size 6 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2 3 3/4 5 5/8 3 7/8 7	Remarks Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18635 18636 18637 18638 18639 18640 18641	6466333333356337 86 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8	Clinched poorly	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18677 18678 18679 18680 18681 18682	Size 6 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2 3 3/4 5 5/8 3 7/8 7 7 1/2	Remarks Clinched poorly On same fish as 18669
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18634 18635 18636 18637 18638 18640 18641 18642	6466333333356337 1/8 1/8 1/8 1/4 1/8 1/8 1/8 1/8 1/8 1/8 1/4 1/4	Clinched poorly	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18676 18677 18678 18680 18681 18682 18683	Size 6 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2 3 3/4 5 5/8 3 7/8 7	Remarks Clinched poorly On same fish as 18669 Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18634 18635 18636 18637 18638 18640 18641 18642 18642	64663333333356337 1/84242888828 1/84242888828 1/2842428888828 1/428888828 1/428888828 1/428888828	Clinched poorly	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18677 18678 18680 18681 18682 18683 18684	Size 6 1/8 5 3/8 4 7/8 3 7/8 3 5/8 4 1/8 3 1/2 3 3/4 5 5/8 3 7/8 7 7/8 7 1/2 7 3/8	Remarks Clinched poorly On same fish as 18669
18624 18625 18626 18627 18628 18629 18630 18631 18632 18634 18635 18636 18637 18638 18639 18640 18642 18642 18643 18644	64663333333356337 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	Clinched poorly	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18677 18678 18679 18680 18681 18682 18683 18684 18685	Size 6 1/8 5 3/8 4 7/8 3 5/8 4 1/8 3 1/2 3 3/4 5 5/8 3 7/8 7 1/2 7 3/8 7 3/4	Remarks Clinched poorly On same fish as 18669 Clinched poorly
18624 18625 18626 18627 18628 18629 18630 18631 18632 18633 18634 18635 18636 18637 18638 18640 18641 18642 18642	64663333333356337 1/84242888828 1/84242888828 1/2842428888828 1/428888828 1/428888828 1/428888828	Clinched poorly	Tag No- 18669 18670 18671 18672 18673 18674 18675 18676 18677 18678 18680 18681 18682 18683 18684	Size 6 1/8 5 3/8 4 7/8 3 7/8 3 5/8 4 1/8 3 1/2 3 3/4 5 5/8 3 7/8 7 7/8 7 1/2 7 3/8	Remarks Clinched poorly On same fish as 18669 Clinched poorly

LARGE-MOUTHED BASS TAGGED AT WINTERGREEN LAKE, OCTOBER 27-28, 1931 (Con.)

B. FISH FROM HASTINGS HATCHERY. POINT OF RELEASE B. (Con.).

Tag No.	Size	Remarks			Tag No.	Size	Remarks	
18688 18689 186 90 18691 18692 18693	6 3/4 3/4 5 1/2 7/8 5/8				1873 ⁴ 18735 18736 18737	3 1/4 2 7/8 3 1/4 3 1/8		
18694 18695 18696	6 7/8 5 5/8	6 7/8 5 5/8			WILD FISH CAUGHT IN LAKE. POINT OF RELEASE A. (see lake sketch with Report 102).			
18697 18698	3 5/8 4 1/2				Tag No.	<u>Si ze</u>	Remarks	
18699 18700 18701 18702	7/8 1/4 1/2 1/2 1/2 1/4 1/4 1/4				18738 18739	8 3/8	Clinched poorly On same fish as 18738	
18703 187 0 4	3 1/2 3 3/4							
18705 18706 18707	3/4 3/2 3/8 3/4 3/4 3/4							
18708 1 870 9								
187 0 0 18711	3 3/4							
18712 18713 18714	3 1/4 3 1/2 3 1/2 3 5/8 3 1/8							
18715 18716 18717	No tag							
18718 18719 18720 18721	3 3/4 3 3/8 3 3/8 3 3/4 3 1/2							
18722 18723 18724 18725	73 1/2 1/2 1/2 1/2 3/4 1/2 3/8 1/2 3/8 2//8				CC to Mi J.		irnie	
18726 18727 18728 18729	3 1/2 3 1/2 3 3/8				Sketch ma	ap of la	ke attached	
18730 18731 18732 18733	2 5/8 3 1/4 3 1/2 2 5/8							
- 177	- 71 -							



SKETCH MAP OF WINTERGREEN LAKE
SHOWING LOCATION OF RELEASES OF BASS
(A and B).

To accompany Report 102 INSTITUTE FOR FISHERIES RESEARCH