

Report to the Esocid Technical Committee

July 1997

on the Muskellunge and Northern Pike Scale Exchange Program

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Subsequent to my last report to the Esocid Technical Committee, July 1996, on the above-mentioned exchange program, we have prepared all scale samples that we have received and have selected a reference set, have photographed and printed the originals of this reference set 12 times, and are preparing to distribute these, along with the software, to initiate the interpretation phase of the program. This will be done before the end of August 1997. We expect the first set of interpretations will be conducted by January 1, 1998.

Some of the specifics are as follows:

Scales and scale impressions have been obtained from 8 states and provinces for 2 species of esocids--muskellunge and northern pike. Scale samples have been specially cleaned and imprinted, and selected scales have been photographed.

In the muskellunge program, samples came from 6 sources and were of various types (see following table). Some were of unknown age, which were subsequently recaptured, in some cases up to 4 times. Others were of known age, which were also subsequently recaptured, up to 3 times. Two hundred thirty-seven samples were represented from 177 fish. We chose 2 scales from each of these samples and made 12 original prints of each. We made close to 6,000 prints from this set. From this, we have selected a reference set representing 119 samples. We chose 2 scales from 15 samples and replicated 12 images multiple times. The total interpretation set has 146 images that will require interpretation. The images are original copies on 8½ x 11 stock, which we think are very good quality. Their reference age information is as follows: unknowns--25%, knowns--34%, 1st recapture--14%, 2nd recapture--5%, 3rd recapture--3%, 4th recapture--1%. In the set, 10% are of a second scale from the same fish and 8% are additional replicates. This will permit a detailed study of variance, both within and between interpretation sets.

The Northern Pike Scale Exchange Program is not as large as the muskellunge program but came from 5 sources, and the scales were of various types (see following table). Some were of unknown age, which were subsequently recaptured once. Others were of known age. One hundred six samples were represented from 71 fish. We chose 2 scales from each of these samples and made 12 original prints of each. We made more than 2,500 prints from this set. From this, we have selected a reference set representing 76 samples. We chose 2 scales from 15 samples and include 12 replicate images. The total interpretation set has 103 images that will require interpretation. The images are of good quality and are original copies. Their reference age information is as follows: unknown--41%, known--13%, 1st recapture--20%. In the set, 15% are second scales and 12% represent replicates.

Esocid Technical Committee Muskellunge Scale Exchange Program

Scale Samples Received and Used in the Interpretation Set

Received

Source	Origin		Recapture				Total
	Unknown	Known	1st	2nd	3rd	4th	
1		28	3	2	1		34
2		5					5
3	22		13	12	8	1	56
6	3	10					13
8	20		15 (5)				40
9	29	60					89
Total	74	103	31 (5)	14	9	1	237

Used

Source	Origin		Recapture				2nd scale	Total
	Unknown	Known	1st	2nd	3rd	4th		
1		25	3	2	1		4	35
2		4					2	6
3	16		7	6	4	1	1	35
6	3	10					4	17
8	10		10				4	24
9	7	10						17
Total	36	49	20	8	5	1	15	134

Number of additional replicate images 12

J. M. Casselman
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Esocid Technical Committee Northern Pike Scale Exchange Program

Scale Samples Received and Used in the Interpretation Set

Received

Source	Origin		1st recapture	Total
	Unknown	Known		
1		6		6
2	15			15
4	35		23 (6)	64
5	7		6	13
7		8		8
Total	57	14	29 (6)	106

Used

Source	Origin		1st recapture	2nd scale	Total
	Unknown	Known			
1		5		3	8
2	14			5	19
4	24		18	3	45
5	4		3	1	8
7		8		3	11
Total	42	13	21	15	91

Number of additional replicate images 12

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