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Au Sable Volunteer Creel Census, 1946

by

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Volunteer creel census records for the Au Sable drainage were kept in a manner similar to that employed in 1945. Through the cooperation of the Crawford County Sportsmen's League, (now the Grayling Sportsman's Club) mimeographed record sheets were distributed to individuals, cabin owners, guides and fishing clubs who recorded the results of angling done on the Au Sable and its tributaries. Except for providing columns for listing the marked fish, the sheets were the same as in 1945 (See sample at end of report).

For the entire drainage (Table 1) almost three times as much fishing was recorded in 1946 as in 1945 (4,564 angling days compared with 1,644 angling days). During 1946, a recorded total of 4,564 anglers fished 21,314.75 hours and caught a total of 18,771 trout, or 0.88 legal trout per hour of fishing, slightly less than during 1945, when the catch per hour for the entire drainage was 1.08 legal fish. The catch consisted of hatchery trout (recognizable by the missing right pectoral fin) in the following numbers: brook trout, 1,240; brown trout, 2,626; and rainbow trout, 1,287; and unmarked wild trout as follows: brook trout, 5,049; brown trout, 7,124; and rainbow trout, 1,445. The ratio of the

Table 1.--Au Sable Drainage Volunteer Creel Census, 1946 trout season, by months, for all fishing

(↓ - numbers in carets indicate numbers of legal fish released).

Month	Number of anglers	Anglers taking no legal fish	Total hours of fishing	Marked trout caught			Unmarked trout caught			Total catch	Catch per hour	Catch per angler
				Brook	Brown	Rainbow	Brook	Brown	Rainbow			
April	484	62	2,194.50	225	278	115	765	831	192	2,406	1.10	5.0
May	1,087	148	4,673.75	380	664 <sup>28</sup> ↓	323 <sup>14</sup> ↓	1,135	1,802	401	4,705 <sup>42</sup> ↓	1.01	4.3
June	1,182	202	5,242.25	384	575 <sup>10</sup> ↓	266 <sup>10</sup> ↓	1,028	1,809	304	4,366 <sup>20</sup> ↓	0.83	3.7
July	916	229	4,324.25	239	613 <sup>3</sup> ↓	317 <sup>4</sup> ↓	1,090	1,399	307	3,965 <sup>7</sup> ↓	0.92	4.3
August	824	326	4,426.00	12	417 <sup>3</sup> ↓	229	967	1,188	214	3,027 <sup>3</sup> ↓	0.68	3.7
September	71	3	454.00	...	79	37	64	95	27	302	0.67	4.2
Totals	4,564	970	21,314.75	1,240	2,626 <sup>44</sup> ↓	1,287 <sup>28</sup> ↓	5,049	7,124	1,445	18,771 <sup>72</sup> ↓	0.88	4.1

species in the catch of marked hatchery trout was 1 rainbow trout to 2 brown trout to 1 brook trout (approximately the same as the planting ratio), and for wild fish the ratio was 1 rainbow trout to 5 brown trout to 3 brook trout. The percentage of unsuccessful anglers in 1946 was 21 (970 of 4,564 fishermen reported taking no fish).

Angling quality was best during the last four days of April (1.10 legal fish per hour), but exhibited a steady decline during May and June. In the latter month it dropped to 0.83 legal fish per hour, but rose during July to 0.92 legal fish per hour. During August and September it dropped sharply to 2/3 of a legal fish per hour of angling.

Comparison of the angling data in the different parts of the Au Sable system indicates a wide variation in angling quality (Table 2). On the main stream, 2,307 anglers, of whom 249 (or 10.8 percent) caught no legal fish, spent 10,147.50 hours in fishing. They caught 10,053 legal trout at the rate of 0.99 legal fish per hour or 4.4 legal trout per angler. The most hours were recorded for June (2,964.25), but the most fish were caught in May (2,620). The best fishing was in April when the catch per hour was 1.18 legal trout, and September was poorest (catch per hour, 0.64 legal trout). The percentage of marked hatchery fish in the legal catch was: brook trout, 10.9 percent, brown trout, 29.2 percent; rainbow trout, 46.6 percent; all trout, 30.6 percent.

On the South Branch, 284 anglers fished 1,657.00 hours and caught 2,211 legal trout. Only 12 anglers from the South Branch (4.2 percent) reported unsuccessful trips. For the entire season, the catch per hour on the South Branch was 1.33 legal trout, or 7.8 legal trout per angler, the best of any of the streams of the drainage. The most hours were

Table 2.--Au Sable Volunteer Creel Census, 1946 trout season, by streams and months, for all fishing.

(↓ - numbers in carets indicate numbers of legal fish released)

Stream and month	Total angling days	Number catching no fish	Total hours of angling	Marked trout caught			Unmarked trout caught			Total catch	Catch per hour	Catch per angler
				Brook	Brown	Rainbow	Brook	Brown	Rainbow			
<b>Main stream</b>												
April	268	23	1,136.00	33	137 <sup>28</sup>	86	239	670	174	1,339	1.18	5.0-
May	660	79	2,593.50	45	469 <sup>29</sup>	250 <sup>14</sup>	317	1,202	337	2,620 <sup>42</sup>	1.01	4.0-
June	707	107	2,964.25	23	408 <sup>10</sup>	234 <sup>10</sup>	236	1,182	240	2,323 <sup>10</sup>	0.78	3.3
July	346	19	1,656.75	54	423 <sup>3</sup>	259 <sup>4</sup>	232	702	261	1,931 <sup>7</sup>	1.17	5.6
August	266	18	1,388.00	...	341 <sup>3</sup>	198	216	646	178	1,579 <sup>3</sup>	1.14	5.9
September	60	3	409.00	...	79	37	36	82	27	261	0.64	4.3
<b>Totals</b>	<b>2,307</b>	<b>249</b>	<b>10,147.50</b>	<b>155</b>	<b>1,857<sup>44</sup></b>	<b>1064<sup>28</sup></b>	<b>1,276</b>	<b>4,484</b>	<b>1,217</b>	<b>10,053<sup>72</sup></b>	<b>0.99</b>	<b>4.4</b>
<b>South Branch</b>												
April	37	8	184.50	1	12	29	32	60	17	151	0.82	4.1
May	74	0	444.00	6	157	69	96	272	62	662	1.49	8.9
June	69	3	393.50	...	93	32	51	206	59	441	1.12	6.4
July	65	0	420.00	3	186	58	102	201	46	596	1.42	9.2
August	39	1	215.00	...	76	30	106	114	35	361	1.68	9.3
<b>Totals</b>	<b>284</b>	<b>12</b>	<b>1,657.00</b>	<b>10</b>	<b>524</b>	<b>218</b>	<b>387</b>	<b>853</b>	<b>219</b>	<b>2,211</b>	<b>1.33</b>	<b>7.8</b>
<b>North Branch and Big Creek</b>												
April	173	31	854.50	160	128	...	484	100	1	873	1.02	5.0
May	353	69	1,636.25	329	38	4	722	328	2	1,423	0.87	4.0
June	406	92	1,884.50	361	74	...	741	421	5	1,602	0.85	3.9
July	505	210	2,247.50	182	4	...	756	496	...	1,438	0.64	2.8
August	518	307	2,819.00	9	...	1	643	424	...	1,077	0.38	2.1
September	11	0	45.00	...	...	...	28	13	...	41	0.91	3.7
<b>Totals</b>	<b>1,966</b>	<b>709</b>	<b>9,486.75</b>	<b>1,041</b>	<b>244</b>	<b>5</b>	<b>3,374</b>	<b>1,782</b>	<b>8</b>	<b>6,454</b>	<b>0.68</b>	<b>3.3</b>
<b>East Branch</b>												
April	6	0	19.50	31	1	...	10	1	...	43	2.21	7.2
August	1	0	4.00	3	...	...	2	4	1	10	2.50	10.0
<b>Totals</b>	<b>7</b>	<b>0</b>	<b>23.50</b>	<b>34</b>	<b>1</b>	<b>...</b>	<b>12</b>	<b>5</b>	<b>1</b>	<b>53</b>	<b>2.26</b>	<b>7.6</b>
<b>GRAND TOTALS</b>	<b>4,564</b>	<b>970</b>	<b>21,314.75</b>	<b>1,240</b>	<b>2,626<sup>44</sup></b>	<b>1,287<sup>28</sup></b>	<b>5,049</b>	<b>7,124</b>	<b>1,445</b>	<b>18,771<sup>72</sup></b>	<b>0.88</b>	<b>4.1</b>

recorded for May (444.00) and also the most fish (662). Angling quality was highest in August when 361 legal trout were captured in 215.00 hours for a catch per hour of 1.68 fish. Only during April was the quality index lower than 1.00 fish per hour, and in that month it was 0.82 legal fish per hour. The percentage of marked hatchery trout in the catch for the South Branch was as follows: brook trout, 2.5 percent; brown trout, 38.0 percent; rainbow trout, 49.8 percent; all trout, 34.0 percent.

Records for the North Branch of the Au Sable and Big Creek, one of its tributaries, have been combined because of the manner in which numerous angling data for these two streams were listed together. A total of 1,966 fishermen used these streams; 709 or 36.0 percent were unsuccessful. These anglers spent a total of 9,486.75 hours in catching 6,454 legal trout at the rate of 0.68 legal fish per hour or 3.3 per angler. The North Branch and Big Creek were used most heavily in August (2,819.00 hours), the most fish were caught in May (1,602). Angling quality was best in April (1.02 trout per hour) when 873 legal trout were taken in 854.50 hours of fishing.

The percentage of marked hatchery-reared trout in the catch was as follows: brook trout, 23.6 percent; brown trout, 12.0 percent; rainbow trout, 38.4 percent; all trout, 19.9 percent.

Only seven records were reported for the East Branch of the Au Sable, probably too few to indicate the actual conditions there. Six of the records were for April and one for August. All were successful in taking fish. These anglers fished a total of 23.50 hours and captured 53 legal trout at the rate of 2.26 legal trout per hour, or 7.6 fish per angler. The percentage of marked hatchery trout in the catch was: brook trout, 73.9 percent; brown trout, 16.2 percent; rainbow trout, 0.0 percent; all trout, 66.0 percent.

For all records listed for the entire drainage the percentage of marked hatchery trout in the catch was: brook trout, 19.7 percent; brown trout, 26.9 percent; rainbow trout, 47.1 percent; all trout, 27.7 percent.

A more nearly adequate series of records for night fishing were reported during 1946 (Table 3). A total of 412 anglers listed the results of after-dark fishing, spending a total of 1,507.75 hours on various parts of the Au Sable drainage after sunset. Their total catch consisted of 1,084 legal trout, for a catch per hour of 0.72 legal fish, or 2.6 fish per angler. Unsuccessful anglers among the night fishermen amounted to 77, or 18.6 percent. Their catch consisted of the following: marked brook trout, 15; unmarked brook trout, 117; marked brown trout, 147; unmarked brown trout, 600; marked rainbow trout, 84; unmarked rainbow trout, 121.

In night fishing, the percentage of marked hatchery trout in the catch was: brook trout, 11.3 percent; brown trout, 19.6 percent; rainbow trout, 40.9 percent; all trout, 22.7 percent. Comparison of the results of night fishing with all fishing indicates that angling after dark took a noticeably higher proportion of wild unmarked trout than did daytime angling (Table 3).

For the records obtained, night-fishing anglers constituted 9.0 percent of the total number listed (412/4,564), and the after-dark angling hours made up 7.5 percent of the total hours recorded (1,507.75/21,314.75). For the second successive year, the records turned in indicate that night fishing is less productive than day-time fishing as far as numbers of fish are concerned. Although there are no data available at present to

Table 3.--Night fishing data, Au Sable Volunteer Creel Census, 1946 trout season. (↓ - numbers in carets indicate numbers of legal fish released).

Month	Number of anglers	Anglers taking no legal fish	Total hours of fishing	Marked trout taken			Unmarked trout taken			Total catch	Catch per hour	Catch per angler
				Brook	Brown	Rainbow	Brook	Brown	Rainbow			
April	1	0	6.50	...	4	...	8	18	...	30	4.61	30.0
May	15	9	20.25	...	...	...	...	6	1	7	0.35	0.5
June	284	49	991.00	11	99	62↓	43	375	73	663↓	0.67	2.3
July	95	11	447.00	1	42↓	22	63	187	43	358↓	0.80	3.8
August	17	8	43.00	3	2	...	3	14	4	26	0.60	1.5
Totals	412	77	1,507.75	15	147↓	84↓	117	600	121	1,084↓	0.72	2.6

compare the size of fish taken during daylight and after dark, it is well known that one of the chief attractions of night fishing is the possibility of capturing larger-than-average trout, particularly brown trout. On the basis of the 1946 records, the night fishermen are not taking more than their numerical share of the trout. Their total catch after dark amounted to 5.9 percent of the entire catch (1,084/18,771). Until it can be demonstrated that the nocturnal anglers remove a disproportionate share of the total catch, any restrictions on anglers who desire to flounder among the sunken tree tops during the dark of the June moon appear unwarranted.

As judged by the catch per hour, the best night fishing was to be obtained on the South Branch, (Table 4) where, over the entire season, 39 night anglers fished 143.50 hours and took 223 legal trout at the rate of 1.54 legal trout per hour. On the main stream, 328 anglers fished 1,232.25 hours after dark and caught 774 legal trout at the rate of 0.63 legal trout per hour, and on the North Branch, 44 anglers fished 128 hours after sunset, caught 77 legal trout at the rate of 0.60 legal trout per hour. One record (obviously not enough to judge) from the East Branch listed 10 trout caught after dark in 4 hours of fishing, or 2.50 trout per hour.

Voluntary records were returned by 54 individuals during 1946 as compared with 15 recorders during 1945, a definite increase in the number of persons sending in fishing data from the Au Sable drainage. A list of these individuals is appended. Especial credit must be given to Franklin Hills for his interest in this project, and who devoted much time



Table 4.--Night fishing records by streams, Au Sable drainage, 1946 trout season--Volunteer Creel Census.

(↓ - Number in caret indicates number of trout released).

Stream and month	Number of anglers	Anglers taking no fish	Total hours of night fishing	Marked trout caught			Unmarked trout caught			Total catch	Catch per hour	Catch per angler
				Brook	Brown	Rainbow	Brook	Brown	Rainbow			
<b>Main Stream</b>												
April	...	...	...	...	...	...	...	...	...	...	...	...
May	9	5	12.25	...	...	...	...	3	1	4	0.33	0.4
June	231	42	858.50	...	85	55↓	26	283	59	508↓	0.59	2.2
July	75	5	333.00	1	35↓	19	21	136	35	247↓	0.74	3.3
August	13	6	28.50	...	2	...	1	9	3	15	0.53	1.2
<b>Totals</b>	<b>328</b>	<b>58</b>	<b>1,232.25</b>	<b>1</b>	<b>122↓</b>	<b>74↓</b>	<b>48</b>	<b>431</b>	<b>98</b>	<b>774↓</b>	<b>0.63</b>	<b>2.3</b>
<b>North Branch</b>												
April	...	...	...	...	...	...	...	...	...	...	...	...
May	6	4	8.00	...	...	...	...	3	...	3	0.38	0.50
June	28	4	80.50	11	8	...	16	35	...	70	0.84	2.50
July	7	6	29.00	...	...	...	...	3	...	3	0.11	0.42
August	3	2	10.50	...	...	...	...	1	...	1	0.10	0.33
<b>Totals</b>	<b>44</b>	<b>16</b>	<b>128.00</b>	<b>11</b>	<b>8</b>	<b>...</b>	<b>16</b>	<b>42</b>	<b>...</b>	<b>77</b>	<b>0.60</b>	<b>1.80</b>
<b>South Branch</b>												
April	1	0	6.50	...	4	...	8	18	...	30	0.46	30.0
May	...	...	...	...	...	...	...	...	...	...	...	...
June	25	3	52.00	...	6	7	1	57	14	85	1.63	3.4
July	13	0	85.00	...	7	3	42	48	8	108	1.27	8.3
<b>Totals</b>	<b>39</b>	<b>3</b>	<b>143.50</b>	<b>...</b>	<b>17</b>	<b>10</b>	<b>51</b>	<b>123</b>	<b>22</b>	<b>223</b>	<b>1.54</b>	<b>5.7</b>
<b>East Branch</b>												
August	1	0	4.00	3	...	...	2	4	1	10	2.50	10.0
<b>Grand Totals</b>	<b>412</b>	<b>77</b>	<b>1,507.75</b>	<b>15</b>	<b>147↓</b>	<b>84↓</b>	<b>117</b>	<b>600</b>	<b>121</b>	<b>1,084↓</b>	<b>0.72</b>	<b>2.6</b>

to obtain angling records for analysis. The cooperation and assistance of the Grayling Sportsman's Club is also gratefully acknowledged.

List of individuals sending in angling data for

Au Sable Volunteer Census

Grayling - A. Hubbell, C. B. Parks, J. Glen Day, H. Deckrow, Mr. Burrus, G. Brzelski, Jr., T. Stephan, N. Stephan, J. Stephan, L. Stephan, G. Stephan, M. Stephan, G. A. Griffin, Mrs. G. Stephan, A. Borchers, Mrs. J. Knecht, Dan Babbitt, E. H. Hoffman, Major Hawkhurst, D. Henderson, C. Feldman, Dr. S. L. Ballard, F. Hills, M. W. Burtch, Ed. Rieth, C. Welch, E. G. Shaw, D. J. Wightman, F. Carr, R. Milnes, Jr., E. Borchers, Mr. Pocock, W. E. Myers, L. H. Richards, Penrod's Cabins, Vassar Club, B. Saunders, D. J. O'Brien, Oxbow Club, A. G. Scott, Mr. McCain, M. G. Vallad, E. Madsen, Mr. Neff, C. P. Ismon, R. Wright.

Lovells - W. T. Miller, R. Duby, R. Steckling, E. Caid, J. Hirschfield, F. L. Wood.

Gaylord - P. Galvin

Lewiston - R. Lloyd

Ohio (Lakewood) - K. E. Harris

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