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INSTITUTE FOR FISHERIES RESEARCH DIVISION OF FISHERIES MICHIGAN DEPARTMENT OF CONSERVATION COOPERATING WITH THE UNIVERSITY OF MICHIGAN

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REPORT OF THE EXPERT VOLUNTEER CENSUS FOR 1938

Webster defines an expert as "an experienced person, one having special skill in a subject, one who has penetrated the secrets of his art."

Probably as long as man has fished, there have been some individuals who were called expert fishermen. They would return invariably with more fish, and bigger fish, than would the average run of angler.

The Fish Division of the Conservation Department knows pretty well what the average fisherman can do. For instance, they know that on the average, he will catch 1.5 fish per hour, and he will fish approximately 3.2 hours at a stretch. These figures are compiled from many thousands of records from both good, poor, and average catches, from all sections of the state, for all types of sport fishing over a period of several years. In 1937, the question was raised "Just how good is the expert fisherman? Does he really produce the goods, or is he merely a better teller of stories?" The Department decided to put a number of good fishermen on their honor to get an answer to this query, with the result that they issued special books through Conservation Officers and District Fishery Superintendents to individuals in their localities who consistently brought in more fish than could be explained merely by chance or good luck. These individuals were all rated as experts in the art of angling. Some might even be considered as expert experts. One hundred twelve of these expert individuals submitted reports for the summer fishing season 1938. Because of incomplete data, a number of these records were not used in the compilation of the data. All were requested to make out a report each time they fished, whether with success or not. In all, a record of 2,024 fisherman-days was obtained for their season's fishing on all waters.

On these 2,024 fisherman-days, the experts caught 12,194 legal fish, at the rate on the average of 1.7 fish per hour. They each fished on the average 3.6 hours per day and returned home with 6 fish averaging 9.3 inches long as the day's catch. Thirteen per cent of the experts went home with alibis only. This last figure is identical with that for 1937.

The ordinary fisherman in 1937 fished on the average 3.2 hours per day and returned home with 4.6 fish as his day's catch, caught at the rate of 1.5 fish per hour. The figure is not available for the per cent of the average anglers for the same period who also taxed their minds for presentable alibis.

## Trout Waters

Expertness was much more apparent on the trout waters than on the lakes. On trout waters, the average expert took 1.5 fish per hour. He fished on the average of 3.7 hours per day and caught 5.6 fish averaging 9.4 inches in length.

The best of the experts on trout waters, recorded for the season, 24 hours of fishing, over which period he took 91 fish at the rate of 3.8 fish per hour.

The average angler on seven trout streams covered by intensive censuses 0.46 in 1938 caught 1.8 fish per hour. He fished on the average of 3.9 hours per day and caught 1.8 fish averaging 8.7 inches in length.

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### Non-Trout Waters

On the non-trout waters, the expert caught 2.2 fish per hour. He fished on the average of 3.2 hours per day, and caught 7 fish averaging 9.1 inches in length.

The best of the experts on non-trout waters, recorded for the season only 9 1/2 hours of fishing, but in that time he took 55 legal fish at the rate of 5.8 fish per hour.

The average angler on non-trout waters caught 1.1 fish per hour. He fished on the average of 3.0 hours per day and caught 3.3 fish averaging 8.3 inches in length. These last figures are from a 1935 census of six Michigan lakes.

#### Species

The expert catches three times as many brook trout as rainbows, and one-third more rainbows than browns. Along with the trout in trout waters, in order of numerical value, come suckers, wall-eyes, pike, perch, and small-mouthed bass.

On non-trout waters, bluegills lead the catch by approximately 6 to 1, followed by large-mouthed bass, yellow perch, bullheads, calico bass, northern pike, and small-mouthed bass.

Comparing the expert catches for 1937 and 1938, we find no change in the catch per hour. The average size of all fish caught was 0.2 of an inch larger in 1938.

Table I gives the total catch for all species for all waters, their average size, and the catch per hour for the more important ones.

Tables II and III record the species, number, and average size for trout waters, and non-trout waters.

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| Species                         | Number           | Average<br>Size | Catch<br>Per Hour |
|---------------------------------|------------------|-----------------|-------------------|
| Brook trout                     | 4,889            | 9.1             | 0.7               |
| Rainbow trout                   | 1,632            | 9•4             | 0.2               |
| Brown trout                     | 1,042            | 10.3            | 0.1               |
| Large-mouth bass                | 478              | 12.8            | 0.07              |
| Small-mouth bass                | 117              | 13.4            | 0,02              |
| Bluegills                       | 2,805            | 7.6             | 0.4               |
| Sunfish                         | 86               | 7.1             |                   |
| Tellow perch                    | 420              | 8.2             | 0.06              |
| Calico bass                     | <u>1</u> 45      | 10.5            | 0.02              |
| Rock bass                       | 91               | 8.0             | • • •             |
| Nalleye pike                    | 67               | 19.0            | •••               |
| Northern pike                   | 139              | 21.1            | 0.02              |
| Suckers                         | 52 <b>*</b><br>8 | 18.0            |                   |
| Whitefish                       | 8                | 11.9            | •••               |
| Frayling                        | 6                | 17.5            | •••               |
| tybrids (cross of bluegills and |                  |                 |                   |
| sunfish)                        | 9                | 10.2            | • • •             |
| Varmouth bass                   | 9<br>1           | 7.0             | •••               |
| Lake trout                      | 15               | 20.4            | • • •             |
| Dogfish                         | 9                | 22.7            | •••               |
| Bullheads                       | 183              | 10 <b>.</b> 1   | 0 <b>.02</b>      |
| otal and average size           | 12,194           | 9•3**           | 1.7               |

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|-------|----------------------------|--|--|--|
| Total | Table I<br>For All Species |  |  |  |
| TOURT | FOL WIT PROTER             |  |  |  |

\* Size for one only.

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\*\* Does not include 51 suckers for which no size was given.

# Table II

# Trout Waters

| Species          | Number | Average size  |
|------------------|--------|---------------|
| Brook trout      | 4,889  | 9.1           |
| Rainbow trout    | 1,632  | 9.4           |
| Brown trout      | 1,042  | 10.3          |
| Small-mouth bass | 2      | 16.6          |
| Yellow perch     | 3      | 9.2           |
| Walleye          | 23     | 20.2          |
| Northern pike    | 3      | 22.0          |
| Suckers          | 51     | No size given |
| Total or average | 7,645  | 9•4           |

# Table III

## Non-trout Waters

| Species          | Number       | Average size |  |
|------------------|--------------|--------------|--|
| Largemouth bass  | 478          | 12.8         |  |
| Smallmouth bass  | 115          | 13.3         |  |
| Bluegills        | 2,805        | 7.6          |  |
| Sunfish          | 86           | 7.1          |  |
| Yellow perch     | <u>7 تېل</u> | 8.2          |  |
| Calico bass      | 145          | 10.5         |  |
| Rock bass        | 91           | 8.0          |  |
| Walleye pike     | 91<br>بلب    | 18,3         |  |
| Northern pike    | 136          | 21.1         |  |
| Sucker           | 1            | 18.0         |  |
| Whitefish        | 8            | 11.9         |  |
| Grayling         | 6            | 17•5         |  |
| Hybrid           | 9<br>1       | 10,2         |  |
| Warmouth bass    |              | 7.0          |  |
| Lake trout       | 15           | 20.4         |  |
| Dogfish          | 9            | 22.7         |  |
| Bullheads        | 183          | 10.1         |  |
| Total or average | 4,549        | 9•1          |  |

## Baits

The expert preferred the fly to any other type of bait, with the lowly worm as his second choice.

Table IV shows the types of baits used on all waters, and the number using each type of bait.

### TABLE IV

Types of Bait Used on All Waters, and the

| Worms    | Insects | Minnows | Fly         | Spinner | Plug  | Comb. | Spear |
|----------|---------|---------|-------------|---------|-------|-------|-------|
| •••      | 3       | 9       | 1           | •••     | • • • | 2     | • • • |
| •••      | 3       | 3       | • • •       | •••     | • • • | 12    | •••   |
| 25       | 4       | • • •   | 14          | •••     | • • • | 4     | • • • |
| •••      | •••     | •••     | 27          | •••     | • • • | 1     | • • • |
| 9        | •••     | •••     | 32          | •••     | • • • | 4     | • • • |
| •••      | •••     | •••     | 42          | •••     | • • • | •••   | • • • |
| 27       | • • •   | • • •   | 11          | •••     | • • • | 10    | • • • |
| 4        | 5       | 2       | 12          | •••     | 3     | 9     | •••   |
| 1        | • • •   | • • •   | 3           | •••     | • • • | ц     | • • • |
| 4        | • • •   | • • •   | 34          | • • •   | • • • | 1     | •••   |
| 2        | • • •   | • • •   | 9           | •••     | 2     | 9     | • • • |
| • • •    | • • •   | •••     |             | •••     | • • • | ì     | • • • |
| 14       | •••     | 22      | 49<br>36    | • • •   | 8     | 20    | •••   |
| 14<br>25 | • • •   | 26      | 7           | •••     |       | 3     | •••   |
| •••      | •••     | • • •   | 15          | •••     | •••   | •••   | •••   |
| 111      | 15      | 62      | 29 <b>2</b> | •••     | 13    | 90    | •••   |

Number Using Each Type of Bait

### Women Experts

Among the experts on record, only one was a woman, and she fished only non-trout waters.

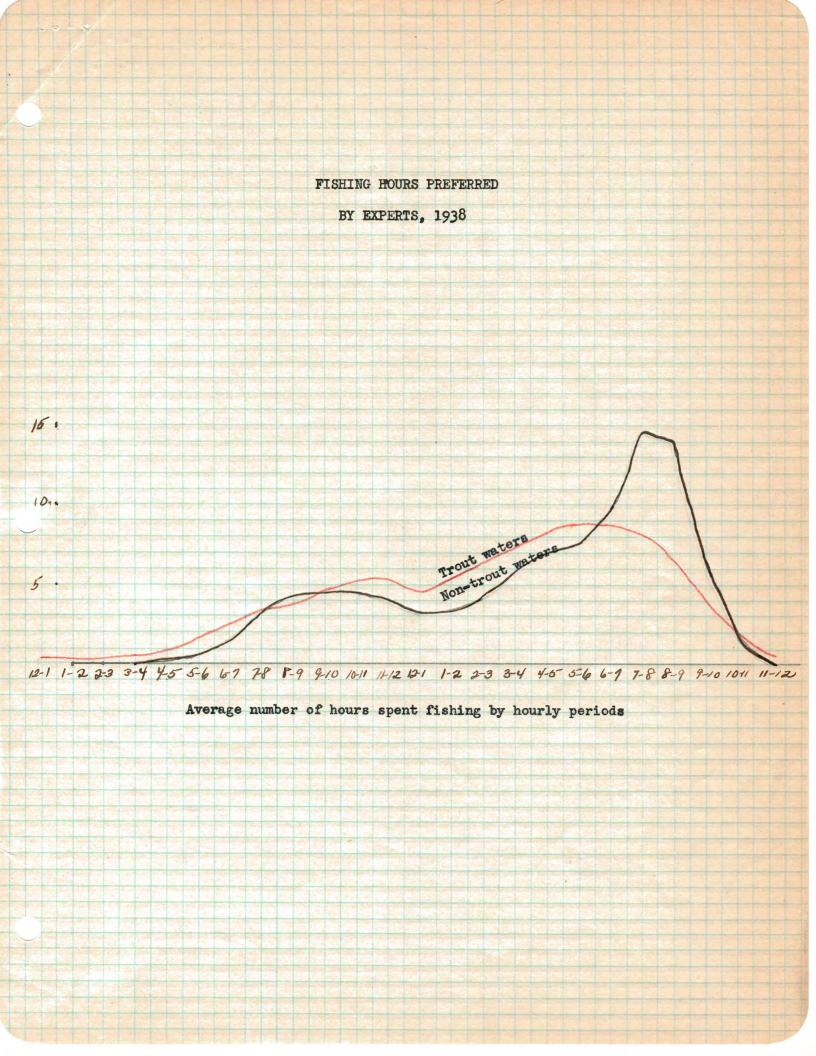
During the season she fished a total of  $74 \frac{1}{2}$  hours on 39 different days, over which period she took 333 legal fish, at the rate of 4.5 fish per hour, of an average length of 8.6 inches. On only one of the 39 days of her fishing did she fail to take fish. This is a record for even the super-experts to shoot at.

## Time of Day for Fishing

The expert showed a decided preference for certain periods in the day in which to do his fishing.

On the non-trout waters, he preferred the hours between 7 and 9 in the evening. He showed no interest whatever in the hours from midnight to three in the morning. On the trout waters, he preferred the hours from 3 in the afternoon to 8 in the evening.

Both the trout and the non-trout fishermen took time off for lunch. The following graph shows the fishing hours preferred.



## Summary

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The expert has a decided advantage on trout waters, where he is three times better than the average trout fisherman.

On the non-trout waters, his margin of advantage is not as great. He averages approximately twice as good.

In the trout waters, the catch of brook trout was greater than all others combined.

In non-trout waters, the bluegill catch was greater than all others combined.

Between the artificial and natural baits, the choice of the experts was approximately 2 to 1 in favor of the artificial fly or plug.

In 1938, as compared with 1937, the expert maintained the same level of skill on non-trout waters, but on trout waters he increased his advantage over the average angler by about 33%.

INSTITUTE FOR FISHERIES RESEARCH

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