Wisconsin Department of Natural Resources
Division of Fish, Game and Enforcement
Bureau of Fish Management
Madison, Wisconsin

Management Report No: 20

LAKE TROUT SPORT FISHING IN THE WISCONSIN WATERS OF LAKE SUPERIOR

BY

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Bayfield

February 3, 1969

A management report of the Bureau of Fish Management provided to keep fishery managers and interested citizens informed on the status of the fishery.

ABSTRACT

Prior to the decline of Lake Superior lake trout (Salvelinus namaycush), which began in the mid 1950's, the lake trout sport fishery in Wisconsin waters of Lake Superior was very productive. Early local newspaper articles indicate that in addition to large catches, lake trout in the fifteen pound class were common. Fishing from the 1930's through the 50's concentrated in deeper water areas around the outer edge of the Apostle Islands. During these years, the fishing was done primarily by charter trolling boats. At the peak of the fishery in 1948, 33 charter trolling boats were in operation. In the late 1950's and early 1960's, lake trout sport fishing reached its lowest point. From 1962 through 1967, information concerning the lake trout sport fishery has been based on mandatory reports voluntarily submitted by sport fishermen who obtained a special permit to take lake trout. Since 1962, 5,502 reports have been returned, which is a small proportion of the actual number of permits issued. The areas primarily fished for lake trout at the present time are near the mainland. Of these areas, a few are extremely productive, notably the Long Island, Sand Island, and Sand Bay area. Each year since 1962, the sport fishermen have been reporting more lake trout per fishermen and more lake trout per trip. In 1967, 55.2 per cent of the fishermen reporting caught lake trout, a dramatic increase from 15.2 per cent in 1962. The nonresident proportion of the fishing force, as well as the nonresident's take of the total catch, has been increasing since 1963.

The mean length of lake trout reported has fluctuated only a little, from 20 to 22 inches, from 1962 through 1967. The increase in large fish caught has been balanced by a similar increase in small fish caught. In 1967, the catchability of lake trout reflected in fish per trip remained about the same from May to September, the months of highest fishing pressure. This is partly due to charter boat catches during July and early August while the fish are in deeper water.

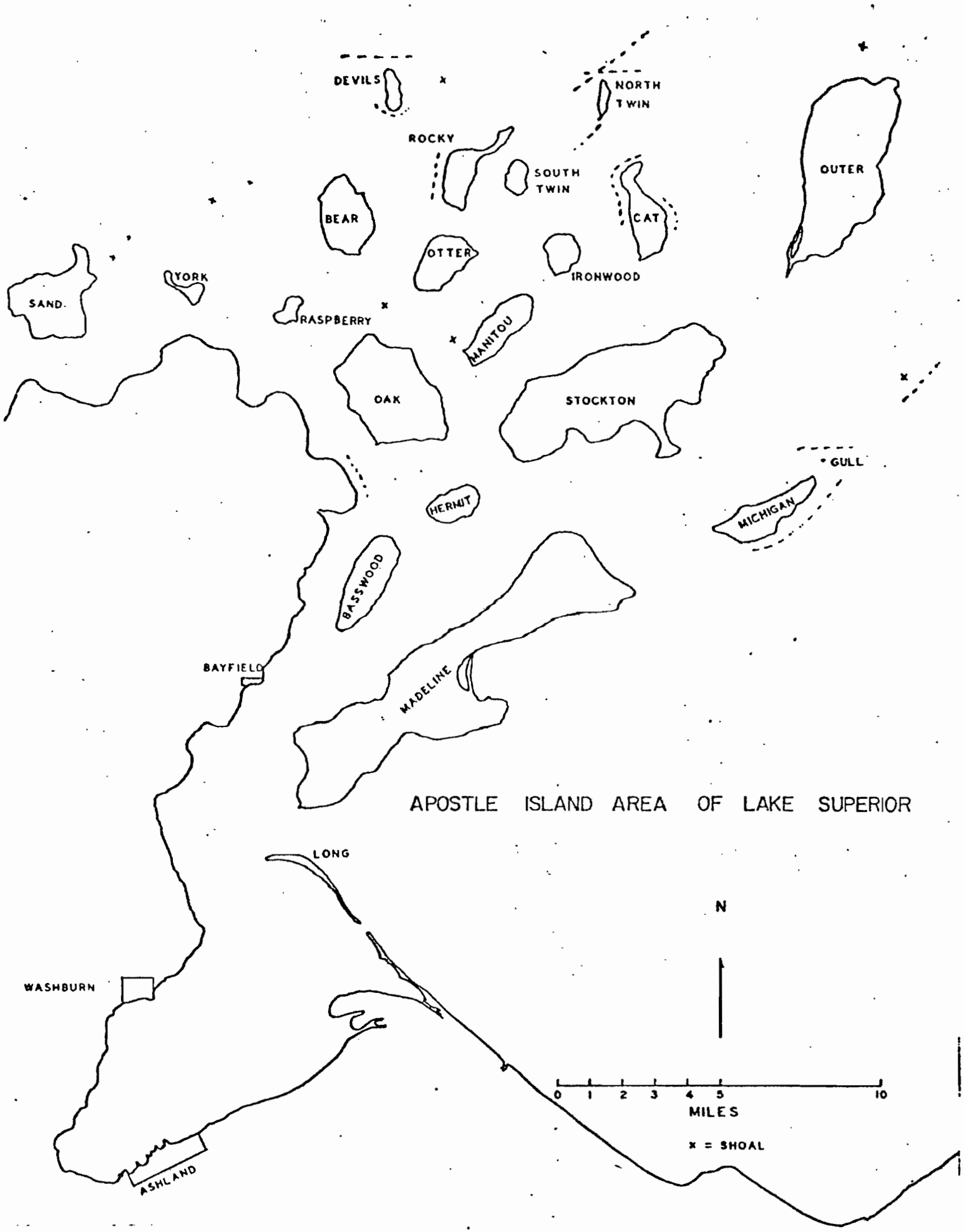
INTRODUCTION

Lake trout sport fishing has occurred on Lake Superior for many years. The early years are not well documented, but, through news articles from The Bayfield County Press and personal conversation with some of the men involved in trolling during the late 1930's and 1940's, an attempt was made to present the entire lake trout sport fishing picture. From 1962 to 1967, the issuance of permits which required the reporting of lake trout caught by the sport fishermen has provided a more complete picture of the fishery. The trends of the sport catch of lake trout from the period 1962 through 1967 are the main concern of this report.

EARLY FISHERY

Early lake trout sport fishing centered around the northern and eastern edge of the Apostle Islands. The areas around North Twin, and Devils Island on the north, and Gull Island Shoals on the east, were the most productive (Figure 1). Prior to 1933, these areas were fished very little by the sportsman because of a lack of suitable boats and motors. Open water sport fishing at this time consisted of trolling from row boats, motorboats, or less often sail boats, with the same heavy hand lines used for ice fishing. The method known as bobbing was, and still is the type of fishing done through the ice for lake trout. However, bobbing never obtained the popularity of open water fishing.

Figure 1. Major Fishing Areas in Wisconsin Waters of Lake Superior 1930-1959. Areas are indicated by dashes.



In the 1920's and 1930's boats of suitable size for fishing along the outer edge of the Apostle Islands were very limited in number. The boats were mainly inboards and primarily locally owned. At that time, boats were not as easily transported as they are today. By 1935, news concerning good catches of lake trout had spread and people who owned large boats discovered a demand for guiding fishermen to the lake trout fishing grounds. In 1936, catches of over 200 pounds of lake trout were reported by individual boats for one days fishing. Many lake trout weighing between fifteen and twenty pounds were reported. The largest lake trout reported in 1936 weighed 33-½ pounds. In 1938, a 43 pound lake trout was caught and in 1941, a 44 pound fish was reported (Table 1).

Fishing success and pressure continued to increase each year, except for the Second World War years. In 1938 the Department of Interior estimated that $75,000 was spent by fishermen trolling in the Apostle Island area. The number of chartered trolling trips was estimated at 1,100. In 1938 outrigger trolling (allowing more lines to be fished from a boat) also became established. By 1939 the number of charter trollers had reached 25. During the Second World War, charter boat trolling suffered a setback because of gas rationing and other economic restrictions. The peak of the early lake trout sport fishery occurred in 1948. That year there were 33 trollers in operation out of Bayfield. By 1954 the number had declined to ten. By the late 1950's and early 1960's, lake trout sport fishing had slumped to almost nothing.

PRESENT FISHERY (1962-1967)

Statistics covering the sport fishery during the period of 1962 through 1967 are based on data compiled from mandatory lake trout sport fishing reports. With the close of the lake trout season in 1962, sport fishing for lake trout was allowed only by permit. Free permits were issued annually to all applicants (Figure 2).

The permittee was required to submit a report form, completing as fully as possible, the date, location, number of hours fished, length of fish, and fin clips of all lake trout caught for all trips made (Figure 3). A report was required even if the angler was unsuccessful. The actual number of permits issued each year has been hard to determine because permits were issued from a large number of cooperative stations in addition to Department of Natural Resources stations. In 1967, 4,838 permits were issued from those stations reporting. However, only 1,996 reports were returned, or 40.5 per cent of the known number of permits issued. The per cent of reports returned would be even lower if all stations had reported the number of permits they issued. The number of reports returned has increased each year since 1962 when 110 were received (Table 2).

Table 1. Lake Trout Caught by Sport Fishermen and Reported in the Bayfield County Press.

Year	Largest Fish Reported (Pounds)	Number & Weight of Lake Trout Per Trip
1936	33	24 fish weighing 194#; 7 fish, largest 20#; 59 fish weighing 327#.
1938	43	3 fish weighing 82#; 5 fish weighing 78#; 9 fish weighing 8 to 20#; 6 fish caught over 35# each for the year.
1939	39	10 fish, largest 21#; 15 fish weighing 117#; 5 fish weighing 109#; 3 fish weighing 30#; 6 fish, largest 20#.
1940	30	10 fish weighing 117#; 21 fish, largest 19#; 24 fish, largest 18#; 14 fish, largest 22#.
1941	44	15 fish, 5 to 7#; 36 fish weighing 115#; 5 fish, largest 10#; 7 fish, largest 17#.
1942	31	13 fish, largest 18#; 12 fish, largest 8#; 18 fish, largest 18#; 21 fish, largest 25#.
1946	26	24 fish weighing 137#; 9 fish, largest 16#; 24 fish weighing 212# (2 days).
1947	27	6 fish, largest 19#; 6 fish, largest 16#; 258 fish in 14 consecutive days.
1948	29	6 fish weighing 81#; largest 20#; 25 fish weighing 132#; 12 fish weighing 112#; 4 fish weighing 64#.
1949	26	8 fish weighing 64#; 7 fish, largest 19#; 8 fish, largest 17#; 18 fish weighing 168#.
1950	43	8 fish, largest 22#; 8 fish weighing 45#; 5 fish weighing 40#; 5 fish weighing 50#.
1951	33	29 fish weighing 171#; 11 fish, largest 20#.
1952		Fishing information no longer reported.

TABLE 2. Number of Reporting Anglers from 1962 through 1967

YEAR	RESIDENTS	NONRESIDENTS	NO ADDRESS GIVEN	TOTAL
1962	89	17	4	110
1963	394	113	6	513
1964	541	151	41	733
1965	651	295	1	947
1966	846	350	7	1,203
1967	1,381	607	8	1,996
	3,902	1,533	67	5,502

Figure 2. Lake Trout Permit

WISCONSIN CONSERVATION COMMISSION
Madison, Wisconsin 53701

Fi-301

PERMIT FOR THE TAKING OF LAKE TROUT AND COHO SALMON IN THE GREAT LAKES BY HOOK AND LINE

PERMIT NO. _____ DATE _____

TO WHOM IT MAY CONCERN:

1. This permit is issued to _____ of _____, State of _____ for the taking of lake trout and coho salmon from the Wisconsin waters of ☐ Lake Superior, ☐ Lake Michigan and Green Bay, by sport fishing methods subject to the following conditions:

2. The daily bag limit and possession limit of lake trout and coho salmon taken under this permit shall be a total of five fish, with a minimum length of 17.0 inches total length.

3. Lake trout and coho salmon taken under this permit shall not be sold, purchased, bartered, or traded in any manner.

4. This permit is not valid when used from any boat actively engaged in commercial fishing operations.

5. No lake trout or coho salmon may be taken by means other than hook and line.

6. The permittee shall keep proper records of all fish taken on forms provided by the Wisconsin Conservation Department. A permit for the following year may be denied for failure to return the report forms with the required information by October 5th.

7. This permit may be revoked, by written notice, if at any time the Conservation Department or its duly authorized representatives find that it is unwise to continue fishing under this permit in the manner hereinbefore described or if the permittee shows lack of cooperation or violates any of the conditions of this permit.

8. This permit is effective from the above date through September 30, 19 ____, both dates inclusive, unless sooner revoked as hereinbefore described.

WISCONSIN CONSERVATION COMMISSION

Issued by _____

L. P. Voigt
Conservation Director

REV. 3-67

WISCONSIN CONSERVATION DEPARTMENT
Madison 1, Wisconsin

FI-302

LAKE TROUT REPORT

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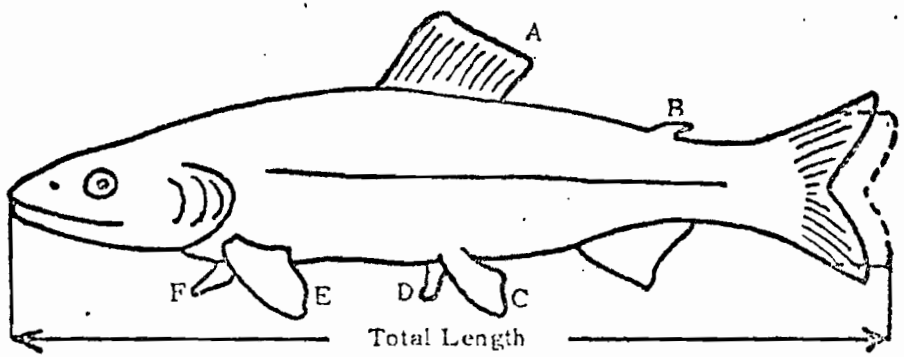

Report missing fins by letter as shown. Include total length in same box. See example. Squeeze tail for maximum length measurement.

Date	Location	Hours Fished	TOTAL LENGTH AND MISSING FINS					Remarks (Other Fish Caught)
			Fish # 1	Fish # 2	Fish # 3	Fish # 4	Fish # 5	
ly 4, 1962	Oak Island	8	BF - 20½	BCD - 26¾	A - 23.0	- 24¼		EXAMPLE

1 2 3 4 5 6 7 8 9

-6-

2

Since 1962, 5,502 reports have been returned. Of these, 1,533 reports, or 28 per cent have come from nonresidents from 37 states and two foreign countries (Figure 4). Each year except 1962, Minnesota ranked first, Illinois second, and Michigan third in number of nonresidents reporting. In 1962, Illinois ranked first, Minnesota second and Michigan third.

In 1967, (the year with the most complete data) 69.1 per cent of the reporting fishermen and 65.8 per cent of the known permittees were Wisconsin residents. The difference of only 3.3 per cent in these figures indicates the proportion of Wisconsin residents and nonresidents reporting is probably close to the actual proportion of Wisconsin residents and nonresidents fishing.

FISHING SUCCESS

The number of Lake trout reported has increased each year from 57 in 1962 to 3,467 in 1967. This increase is primarily the results of a build up in lake trout population, but is also reflected in the increased ability and know-how of the angler, and an increase in fishing pressure. From 1962 through 1967, fishermen reporting increased from 110 to 1,996 and successful fishermen increased from 17 to 1,102. During the same period the number of successful trips reported increased from 34 to 1,750 (Table 3).

The number of lake trout reported by nonresident anglers increased from 6.6 per cent of the total harvest in 1963 to 24.6 per cent in 1967. During the same period the number of nonresident fishermen increased from 20.7 to 30.5 per cent. The proportion of lake trout reported by nonresidents increased 18 per cent while the number of nonresident fishermen increased 9.8 per cent. The increase in fish reported by nonresidents is almost double the increase in nonresident fishermen. This increase in reported catch is partially due to the greater use of charter trolling boats by nonresidents. In 1962 there was only one charter trolling boat available at Bayfield. In 1964 there were two such boats at Bayfield and one at Cornucopia. In 1967 there were five full time and one part time trolling boat operators at Bayfield and one full time and one part time operators at Cornucopia. The trolling boat operators are very successful in providing satisfactory fishing because they are out almost every day and know where and how to locate the fish.

FIGURE 4. Residence of Reporting Lake Superior Lake Trout Sport Fisherman, 1962 through 1967.

Table 3. Sport Fishing Success for Lake Trout, 1962 - 1967.

Year	Angler Classification	Number of Fish Caught	Number of Fishermen Reporting	Fish Per Fisher-men	Successful Fishermen Number	Successful Fishermen Per cent	Number of Successful Trips	Fish Per Successful Trip
	Residents	51	89	.57	14	12.7	31	1.65
1962	Nonresidents	6	17	.35	3	2.7	3	2.00
	Unknown	0	4	0.00	0	0.0	0	0.00
	TOTAL	57	110	.51	17	15.4	34	1.68
	Residents	489	394	1.24	131	33.2	338	1.45
1963	Nonresidents	35	113	.31	20	17.7	22	1.59
	Unknown	26	6	4.33	3	50.0	11	2.36
	TOTAL	550	503	1.09	154	30.6	371	1.48
	Residents	753	541	1.39	193	35.7	499	1.51
1964	Nonresidents	80	151	.53	38	25.1	58	1.38
	Unknown	16	41	.39	7	17.1	11	1.45
	TOTAL	849	733	1.16	238	32.5	568	1.49
	Residents	1,330	651	2.04	293	45.0	753	1.77
1965	Nonresidents	230	295	.79	83	28.1	142	1.62
	Unknown	0	1	0.00	0	0.0	0	0.00
	TOTAL	1,560	947	1.65	376	39.7	895	1.74
	Residents	1,517	846	1.79	364	43.0	818	1.85
1966	Nonresidents	308	350	.88	126	36.0	189	1.63
	Unknown	8	7	1.14	4	57.1	8	1.00
	TOTAL	1,833	1,203	1.52	494	41.1	1,015	1.81
	Residents	2,603	1,381	1.88	786	56.2	1,321	1.97
1967	Nonresidents	850	607	1.40	312	51.1	422	2.01
	Unknown	14	8	1.75	4	50.0	7	2.00
	TOTAL	3,467	1,996	1.74	1,102	55.2	1,750	1.98

The following information on fishing success is based on successful trips, not total trips because it is believed that many of the anglers only reported successful trips. The number of lake trout caught per successful trip has increased from 1.48 fish in 1963 to 1.98 fish in 1967. The percentage of successful trips producing more than one lake trout has increased from 30 per cent in 1963 to 49 per cent in 1967 (Table 4). The percentage of successful trips producing 4 or 5 lake trout has increased from 4 per cent in 1963 and 1964 to 11 per cent in 1966 and 1967. The 1962 data is not entirely comparable to 1963 through 1967 information because the permit reporting system was not initiated until August of that year.

TABLE 4. Per cent of Successful Trips Producing 1,2,3,4, and 5 Lake Trout, 1962 through 1967.

Year	Per cent of Trips Producing 1 Fish	Per cent of Trips Producing 2 Fish	Per cent of Trips Producing 3 Fish	Per cent of Trips Producing 4 Fish	Percentage of Trips Producing 5 Fish
1962	65	17	6	9	3
1963	70	20	6	2	2
1964	68	21	7	3	1
1965	56	26	9	4	5
1966	56	21	12	7	4
1967	51	24	14	6	5

The resurgence of the lake trout population as indicated by the information presented here can be attributed to a combination of several factors. First of all, there has been a drastic reduction in the predator sea lamprey population. The Great Lakes Fishery Commissions Annual Report for 1962 documents an 87 per cent reduction in spawning sea lampreys taken at assessment weirs located on streams flowing into Lake Superior. Another development was the closing of the commercial lake trout fishery in mid 1962. This restriction confined the taking of lake trout with nets to scientific collections only. A third factor has been the stocking of lake trout. Since 1959 about 300,000 marked lake trout yearlings have been stocked annually in the Wisconsin waters of Lake Superior by the Department of Natural Resources.

FISHING GROUNDS

In contrast to the off shore fishing grounds of the early sport fishery, recent fishery is concentrated nearer the mainland. Prior to the decline of the lake troup population, the outer edge of the Apostle Islands was fished most extensively because it produced the largest fish. The present fishery has concentrated nearer the mainland because the lake trout in the developing population are relatively the same size all over. Since the build up of the lake trout population many more anglers have taken advantage of the fishing. This has resulted in an increase in the use of small privately owned boats. In many cases these smaller boats are just not sea worthy enough to venture out great distances from shore. It is far more economical and safer for the fishermen to fish near shore than run 10 to 20 miles to the outer area to fish.

On the lake trout fishing reports, anglers were requested to give the locations of the areas they fished. From 1962 through 1967, 75 locations were reported. There were only 14 locations reported in 1962. Since then there has been a gradual increase in the number of locations being fished and reported. In 1963, the number of locations increased to 39. In 1965 there were 53 and in 1967 there were 65 different fishing areas reported.

Some difficulty arises in placing the locations reported into realistic fishing areas because some locations are divided between two fishing areas. For example, Madeline Island has two intensely fished areas; one along its eastern shore and the other between its south shore and the north shore of Long Island. A fisherman catching a lake trout in the latter area may give either Madeline or Long Island as the locations of the catch. For this reason, only general fishing areas are presented in Figure 5 with a further breakdown of these areas presented in Table 5.

In 1967, 11 per cent of the 65 locations indicated produced 1,908 or 55 per cent of the lake trout reported. The Long Island and Sand Island areas were credited with producing the largest number of fish reported, with 797 fish for the former area and 450 fish for the latter.

ANNUAL CATCH DISTRIBUTION

Generally speaking sport fishing for lake trout occurs on a year-around basis. Prior to the 1968 season there was a four or five week period in the fall when the season was closed. This closed period started around the first of October and extended through October or into early November. This is normally the lake trout spawning period.

The catch of lake trout is higher during the open water period. The catch is usually lowest during December and January and again in the spring (April) when ice conditions often restrict fishing activity.

Up to the late 1930's and early 1940's lake trout sport fishing success dropped off in early July until late August. Fishermen then began to realize that they could still catch lake trout during this period by following them to deeper water. This same pattern of success is also reflected in the July-August period of the more recent sport fishery (1962-1967) - Table 6. The proportion of the total catch reported varied between 30 and 40 per cent for the July-August period.

In analyzing the lake trout catch over a calendar year the 1967 catch information was used because it included the most data for a single year (Table 7). In 1967 the period of open water fishing on Lake Superior was from April through December. During April there was a transition from ice fishing to open water angling with the results of each being hidden. Success in April was very low (0.9 fish per trip) probably because as the ice went out fishing could occur only in marginal areas, and open water angling was also limited. December had very light fishing pressure as no trips were reported. The number of lake trout caught each month during the remaining open water period depended to a large extent on the amount of fishing pressure. Fishing pressure here is expressed as the number of fishing trips made. June, with the highest number of trips, 599, produced the most lake trout, 859.

FIGURE 5. General Areas Producing Lake Trout, 1962 - 1967

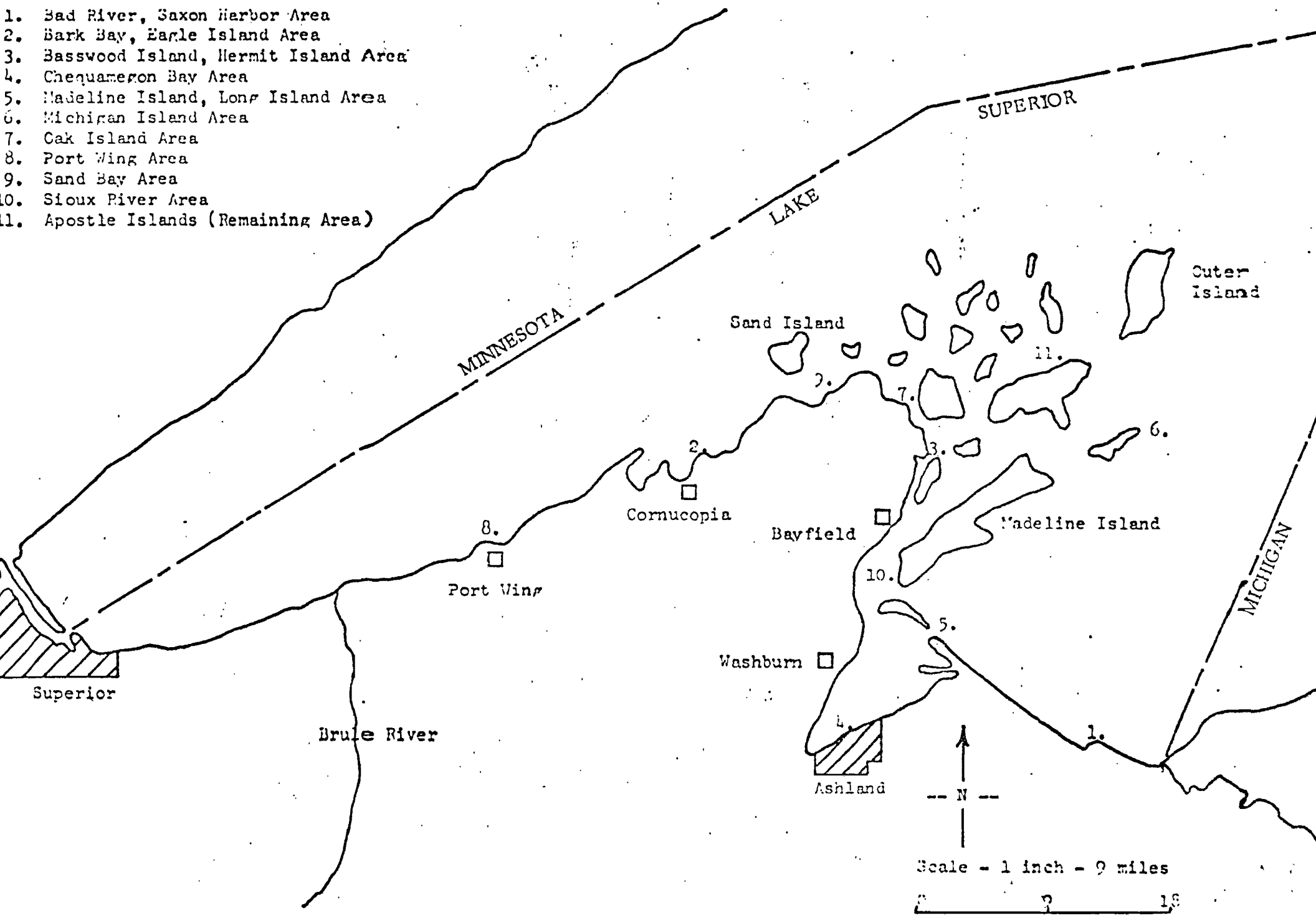

Table 5. Number of Lake Trout Caught at Reported Locations.

No.	General Areas and Locations Reported Within Those Areas	Number of Fish Caught					
		1962	1963	1964	1965	1966	1967
1.	Bad River, Saxon Harbor Area Bad River Mouth, Little Girls Point, Marble Point, Saxon Harbor, and Weaverly Beach	1	3	14	43	108	169
2.	Bark Bay, Eagle Island Area Bark Bay, Bark Point, Cornucopia, Eagle Island, Eagle Island Shoals, Roman Point, Siskiwit Bay, Squaw Bay, and Squaw Point	1	112	141	356	312	394
3.	Basswood, Hermit Island Area Basswood Island, Hermit Island, Roys Point, Red Cliff Bay, Red Cliff Point.	0	39	46	57	45	48
4.	Chequamegon Bay Area Ashland, Chequamegon Bay, Kakagon Slough Mouth Rock Run, Sand Cut and Washburn	0	8	2	12	34	73
5.	Madeline Island, Long Island Area Big Bay, Krones Point, Long Island, Madeline Island, Punky Bay, South Channel.	1	60	66	239	588	914
6.	Michigan Island, Gull Island Area Gull Island, Gull Shoals, and Michigan Island	4	2	17	56	10	196
7.	Oak Island Area Frog Bay, Oak Island, Oak Island Shoaks, Raspberry Bay, Raspberry Island and Raspberry Point	6	33	42	54	83	99
8.	Port Wing Area Brule River Mouth, Cranberry River Mouth, Herbster, and Port Wing	0	2	9	21	29	35
9.	Sand Bay Area Eagle Bay, Point Detour, Big Sand Bay, Little Sand Bay, Sand Island, Sand Point, Sand Island Shoals, York Island and York Island Shoals	38	87	202	335	342	718
10.	Sioux River Area Bayfield, Houghton Point, Onion River Mouth Pikes Bay, Pikes Point, Salmo, Sioux River Mouth, Vantassell's Point	2	142	232	146	184	313
11.	Remaining Apostle Islands Area Apostle Islands, Bear Island, Bear Island Shoals, Cat Island, Devils Island, Manitou Island, North Twin Otter Island, Outer Island, Quarry Point Rocy Island and Stockton Is.	2	21	12	38	54	156

Table 6. Annual Distribution of the Reported Catch by Semi-monthly Periods.

Period		1962	1963	1964	1965	1966	1967	TOTAL 1962---1967
Jan.	1-15				2		4	6
	16-31			3	8	4	1	16
Feb.	1-15		5		7	20	7	39
	16-28		6	5	13	52	8	84
Mar.	1-15		7	3	95	37	50	192
	16-31		5	9	81	11	66	172
Apr.	1-15				71	1	12	84
	16-30			4	18	10	8	40
May	1-15		1	29	13	77	69	189
	16-31		27	57	87	220	281	672
June	1-15		38	162	131	327	386	1,044
	16-30		72	119	267	220	473	1,151
July	1-15	1	102	90	207	184	391	975
	16-31		27	80	139	139	269	654
Aug.	1-15	21	32	36	105	109	272	575
	16-31	16	43	34	69	112	190	464
Sept.	1-15	15	38	69	74	105	353	354
	16-31	4	78	90	83	112	350	717
Oct.	1-15	----------Closed Season----------						
	16-31							
Nov.	1-15		28		62	41	28	159
	16-30		1	3	4	2	1	11
Dec.	1-15		1					1
	16-31							

Table 7. Relationship of fishing pressure, expressed in trips, to the annual distribution of the catch in 1967.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Lake Trout Caught	5	15	116	20	350	859	660	462	703	Closed Season	29	No Data
Number of Lake Trout Trips	8	15	70	23	222	559	438	288	416		21	
Number of fish Per Trip	.6	1.0	1.7	.9	1.6	1.5	1.5	1.6	1.7		1.4	

caught. The September success rate was 1.7 lake trout per trip compared to 1.5 fish per trip in June. Increased fishing pressure during the open water period appears to be related to summer vacation time and better weather rather than in response to better fishing.

Ice fishing (usually confined to the period between January and early April) had peak activity in March with 70 trips reported and a success rate of 1.7 fish per trip. Fishing pressure during the ice fishing period appears to correlate with better fishing success.

LAKE TROUT SIZE

The minimum size limit for lake trout taken in Wisconsin waters of Lake Superior has been 17 inches during the 1962 - 1967 period. The mean length of lake trout reported by sport fishermen from 1962 through 1967 has fluctuated between 20 and 22 inches (Table 8). The increase in the number of larger fish caught each year was masked by a corresponding increase in smaller legal fish caught. The availability of smaller lake trout indicates good recruitment, although recruitment at present is about 93 per cent hatchery reared fish, based on sample catches. Figure 7 shows the length frequency of the reported catch for selected years from 1962 through 1967, and indicates a gradual development of a more normal length frequency curve. Lake trout mortality rates due to sea lamprey predation are unknown, but the sea lamprey undoubtedly has had some effect on the length frequency of the lake trout population as has the commercial fishery. In the case of sea lamprey predation, indications are that larger fish are more frequently affected than smaller fish because scarring rates increase as the length of lake trout increases. For example, in 1967 out of 17,012 lake trout checked, none of the fish from 17 to 20 inches long had fresh wounds while 2.4 per cent of those fish, 29 inches and over had fresh wounds (1968 Lake Superior Progress Report).

FIN CLIP INFORMATION

Since 1959, all hatchery reared lake trout released in Wisconsin waters of Lake Superior have been marked by the removal of one or more fins. Anglers were asked to record any fins that were clipped on marked lake trout they caught. Due to the inability of many fishermen to recognize partially regenerated fins and an apparent lack of concern by many to record such clips conscientiously, fin clip information was unreliable. In 1967, 16.1 per cent of the lake trout reported by sport fishermen were recorded as natives, or unmarked fish. This corresponds to about seven per cent native lake trout caught in commercial fishing gear in checks made by Department of Natural Resources personnel for the same period. Some fin clips never reported from lake trout taken in commercial fishing samples were reported by sport fishermen.

FUTURE PROSPECTS

The favorable trends which have developed in the lake trout sport fishery since 1962 show no signs of let up in the near future. The pattern of fishing intensity of the present fishing areas is expected to continue into the foreseeable future. However, overall fishing pressure is expected to increase in the next several years, especially ice fishing because of growing use of snowmobiles. Increased fishing pressure on the more popular fishing grounds may also encourage some anglers to pioneer for new potential fishing areas.

Because of the discontinuance of the lake trout sport fishing permit system on December 31, 1967, future information concerning the lake trout sport fishery in Wisconsin waters of Lake Superior will be based on creel census data and charter boat trolling reports.

5-22-69 bt

Table 8. Mean Length and Length Frequency of Reported Lake Trout, 1962-1967.

	Mean Length In Inches					
	1962	1963	1964	1965	1966	1967
	20	22	22	21	20	21

Length Inches	1962	1963	1964	1965	1966	1967
17	9	34	67	133	272	395
18	9	51	81	194	230	431
19	8	60	85	167	240	396
20	10	62	70	140	191	358
21	6	36	77	155	167	307
22	4	51	77	176	168	316
23	5	78	82	143	136	280
24	2	39	84	132	112	276
25	3	31	58	93	94	180
26		26	57	98	83	157
27	1	14	34	46	49	115
28		13	19	33	34	88
29		3	11	13	31	44
30		1	3	8	15	25
31		1	3	3	3	13
32			3	2	2	4
33		1		1	1	4
34			1			2
35						1
36						1
37						1