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NORTH CENTRAL FOREST EXPERIMENT STATION, FOREST SERVICE—U.S. DEPARTMENT OF AGRICULTURE
 Folwell Avenue, St. Paul, Minnesota 55101

Private Pleasure Boating In the National Forests of Minnesota

Summary

The two National Forests of Minnesota accommodate slightly over one-tenth of the private pleasure boaters in the State. There are more private boaters in the Superior National Forest than in the Chippewa. Boaters within each Forest come predominantly from the local area. Of the boaters from outside the local area, one-half come from the Twin Cities Metropolitan Area.

Within the Superior National Forest, boaters from outside the local region concentrate near the edge of the Boundary Waters Canoe Area. In contrast most local boaters use lakes away from the Canoe Area. Because population growth is much greater outside the Superior local region than inside it, future increases in boating use may tend to concentrate on the wilderness fringe.

One-half of the Chippewa National Forest boat launchers use the three large lakes—Cass, Leech, and Winnibigoshish. These large lakes are predominantly used by transient launchers (cartop or trailered boats) while on the smaller lakes most launching is from seasonal or permanent dwellings.

State and National Forest Boat Launching Totals

There were 143,700 licensed private boats in Minnesota in 1964 (excluding rental boats). A recent mail survey¹ indicated that 11 percent of these were used primarily on lakes within the Chippewa (4 percent) and Superior (7 percent) National Forests during 1963.²

Statewide, 59 percent of the boat launchers normally launched boats from "seasonal dwellings or year-round homes," hereafter called "homes" (table 1). The remaining 41 percent were transient boaters who usually hauled their boats to public or privately owned launching sites. On the Superior National

Forest, however, home launchers made up only 43 percent of the total Superior boat launchers, compared with 57 percent on the Chippewa and 59 percent for the State. These figures suggest that seasonal home development is not as far advanced in the Superior National Forest as in the rest of the State.

The type of launching facility used was related to the days of boat use per season. The average number of boat-use days for each primary use area in 1963 were:

	For home launchers	For transient launchers
Superior	47	25
Chippewa	51	31
Both Forests	48	27
Rest of State	57	31
State average	56	30

¹ Basic data were obtained from the Minnesota Outdoor Recreation Resources Commission (MORRC). In summer 1964, MORRC conducted a survey of the 143,700 private pleasure boat launchers (excluding boats owned by resorts or other commercial establishments) who license their boats in Minnesota. Questionnaire post cards were sent to a 7-percent random sample. The returns (35 percent) were fairly evenly distributed among the sending areas. The 390 cards for boat owners that launched most often on lakes within or partly within either the Chippewa (144) or the Superior (246) National Forests were used for this study. The most pertinent MORRC publications are: MORRC Report 3, Public Access in Minnesota; MORRC Staff Report 4, A Study of Private Enterprise in Outdoor Recreation.

² Assuming a random return, the standard errors on the estimated number of launchers throughout this report at the 95-percent confidence level are as follows:

Estimated number	±	Standard error
20,000	±	1,660
10,000	±	1,210
5,000	±	870
1,000	±	400
500	±	260

Table 1.—Number of boats launched by type of launching site primarily used

Primary use area	Home launchers ^{1/}		Transient launchers ^{1/}		Total number of launchers ^{1/}
	Number	Percent of area total	Number	Percent of area total	
Superior	4,400	43	5,800	57	10,200
Chippewa	3,400	57	2,600	43	6,000
Superior & Chippewa	7,800	48	8,400	52	16,200
Rest of State	77,000	60	50,500	40	127,500
State total	84,800	59	58,900	41	143,700

^{1/} Every boat license owner was considered a launcher.

An average boat launched from a "home" in Minnesota was used 56 days, whereas the average transiently launched boat was used 30 days, only slightly more than half as much. The National Forest length-of-use averages for both home and transient launchers were lower than the overall State averages, particularly in the Superior National Forest. There appear to be two principal reasons for this: (1) compared with the rest of the State, neither Forest has many permanent lakeshore residences, which have longer use periods, and (2) the length of the boating season is shorter in the northern part of the State, particularly in northeastern Minnesota.

Statewide, about three-fourths of the total boat-use days come from home launchers (table 2). Even in the National Forests, with less lakeshore home development than in many other areas of the State, the majority of private boat use comes from home launchers.

Origin of Private Boat Launchers

Four origin regions were established for each National Forest (fig. 1). These were (1) local, (2) Twin Cities Metropolitan Area (TCMA), (3) rest of Minnesota, and (4) other States. For the two Minnesota National Forests combined, private pleasure boaters came predominantly from the local area.

Origin	In percent		
	Superior	Chippewa	Both
Local	78	34	61
TCMA	13	28	19
Rest of State ¹	5	27	13
Other States	4	11	7

¹ For each Forest, "rest of State" includes the local area of the other Forest. Approximately one-half of the boaters from outside the local area came from the Twin Cities Metropolitan Area.

Table 2.—Total boat-use days

Primary use areas	For home launchers		For transient launchers		Total days in thousands
	Thousands of days	Percent of area total	Thousands of days	Percent of area total	
Superior	206	59	145	41	351
Chippewa	173	69	80	31	253
Rest of State	4,370	74	1,542	26	5,912
State total	4,749	73	1,767	27	6,516

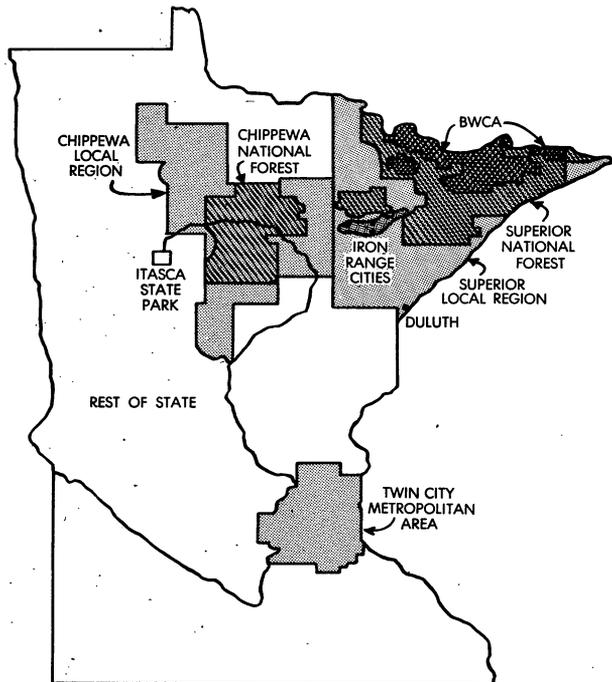


Figure 1.—Origin regions for private boat launchers using the Superior and Chippewa National Forests.

However, the two Forests differed sharply in boater origins. Pleasure boaters on the Superior were mainly local, whereas the majority of Chippewa boaters came from outside the local area.

Local boater figures are influenced by the shape of local regions (which encompass whole counties), especially within the Superior National Forest. The Superior local region contains Duluth and most of the Iron Range cities. Duluth, however, contributed only 18 percent of the local boaters. Most Superior local use originated from the Iron Range cities and the North Shore. The Chippewa had a lower proportion of local boaters than the Superior because of three principal factors: (1) a lower local-region population from which to draw visitors, (2) more accessibility to the population concentrations of the

Twin Cities Metropolitan Area and southern Minnesota, and (3) location near Itasca State Park, the major northern Minnesota tourist attraction.

There was little difference between the origins of transient boaters and home boaters in the Superior (table 3). On the Chippewa, however, more local boaters were transient.

Distribution of Boating Within the Superior National Forest

The Superior National Forest was divided into three separate destination regions: (1) the wilderness (lakes on the edge of the Boundary Waters Canoe Area), (2) Lake Vermilion, and (3) the rest of the Forest. Lake Vermilion was set apart because it ranked as the third most heavily used lake for private boating in the State (surpassed only by Minnetonka and Mille Lacs lakes).

One-third of the Superior launchers and almost 40 percent of the home launchers were concentrated on Lake Vermilion (table 4). Lakes on the edge of

Table 3.—Origin areas of pleasure boaters by launching type
(In percent)

Launching type	Local	TCMA	Rest of State	Other ^{1/} States
SUPERIOR				
Transient	79	13	9	2
Home	76	12	5	7
CHIPPEWA				
Transient	42	29	27	2
Home	27	28	27	18

^{1/} The other States percentage totals show more home than transient launchers. However, outstate transient launchers having a boat licensed in another State were missed in the survey.

Table 4.—Percentage of launchers in Superior National Forest from each origin region

Primary use areas	Local			TCMA			Other areas			All areas			Number of launchers
	Home	Tran- sient	Total	Home	Tran- sient	Total	Home	Tran- sient	Total	Home	Tran- sient	Total	
^{1/} Wilderness	11	24	19	36	53	46	67	50	58	20	30	26	2,600
Vermilion	40	32	36	36	6	18	33	42	38	39	30	34	3,500
Rest of Forest	49	44	45	28	41	36	0	8	4	41	40	40	4,100

^{1/} The Wilderness includes all lakes in or partly in the Boundary Waters Canoe Area, plus Crane Lake.

the Boundary Waters Canoe Area accounted for another one-quarter of the total boaters. Thus, 60 percent of the total private boat launchers in the Superior used the edge of the wilderness and Lake Vermilion.

There is a considerable difference in the pattern of use between visitors from the local area and those from other areas. This suggests some basic differences in visitor preferences. Use patterns show no strong wilderness attraction for local boat launchers; only 19 percent went to the edge of the wilderness. Apparently local boaters used the closest launching places. In contrast, over half of the non-local visitors to the Superior National Forest launched their boats on the edge of the Boundary Waters Canoe Area. For non-local boaters the wilderness seems an important attraction. This difference was particularly sharp for boating from home sites: Only 11 percent of the local home boating took place on wilderness or edge-of-the-wilderness lakes compared with nearly half of the seasonal home boating by people from non-local origin areas.

The population projections imply that increasing future recreational use of the Superior National Forest will consist primarily of visitors from outside the local area.³ If present visitor-use preferences persist, most of this increase will take place on the wilderness fringe or in areas of similar recreation environment. The Crane Lake Recreation Area (Superior National Forest) and the border lakes west from there to International Falls, if they retain their wild character, may be viewed as an alternative wilderness fringe by boaters.

³ In 1960, 90 percent of the Superior local region population lived in urban places (urban centers of over 2,500). Between 1960 and 1975 urban population growth of the region has been projected at only 28,000 (an 11-percent increase) compared to 530,000 (35 percent) for the Twin Cities Metropolitan Area, and 91,000 (17 percent) for the rest of the State. Of the projected urban growth in Minnesota 97 percent is expected to take place outside the local Superior region. (From: Borchert, John R., and Russell B. Adams, Projected Urban Growth in the Upper Midwest: 1960-1975, *Upper Midwest Econ. Study, Univ. Minn.* 1964, table 1).

Distribution of Boating Within the Chippewa National Forest

The Chippewa National Forest was divided into two areas, one of large lakes (Cass, Winnibigoshish, and Leech), and a second containing all other lakes within or partly within the Forest boundary. The number of launchers was 2,800 on large lakes and 3,200 on the other lakes. In percentage they were divided between the primary use areas as follows:

	<i>Large lakes</i>	<i>Other lakes</i>
Home launchers	34	66
Transient launchers...	63	37
Both	46	54

Almost one-half of the private pleasure boat launchers were concentrated on the three large lakes. These lakes attracted almost two-thirds of the Chippewa transient launchers, but only one-third of the home launchers. Seventy-one percent of the launchers on the smaller Chippewa lakes were from lake-shore homes, compared with only 42 percent on the large lakes.

In terms of total recreation impact on the Chippewa, home launchers are the most important. Today they account for 69 percent of the private pleasure boating days of use on the Forest (table 2). MORRC projections show that Statewide the number of home boaters will increase by 150 percent between 1960 and 1975, a rate of growth three times that of transient boaters. If these projections are applied to the Chippewa boat-use day figures, by 1975 over 80 percent of the private boat-use days within the Forest will originate from homes, seasonal or permanent. This means, if the location of future home development can be predicted, most of the future private boating increase within the Forest can be anticipated. Though present figures show that two-thirds of the seasonal homes are on the smaller lakes of the Forest, there is no good evidence to indicate why this settlement pattern exists or if it will continue.

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