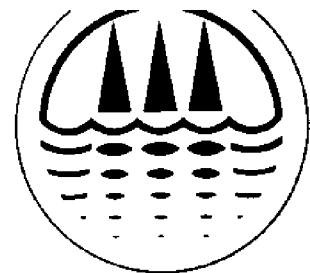


Superior Advisory Notes



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No. 3

Recreational boating on western Lake Superior A survey

by James D. Murray and J. Clark Laundergan

Introduction

Recreational boating on western Lake Superior has increased significantly in recent years. In order to satisfy increasing demand, boating facilities have been expanded and more are being planned for the future. Accurate information about boating and the needs of the boater is essential to adequate planning.

With this in mind, the Minnesota Marine Advisory Service sponsored a survey of boating during the summer of 1976. Names and addresses of Lake Superior boaters were gathered from marina owners and boating clubs from the Apostle Islands area of Wisconsin to Grand Portage, Minnesota.

In all, 787 boaters were sent questionnaires. Four hundred forty-seven, or 57%, responded. The boaters surveyed either berthed at marinas in the study area or were members of boating clubs based in western Lake Superior. Day users who trailered their boats to Lake Superior and were not boating club members or marina users were not included.

The Average Boater

The average western Lake Superior boater is a 45 year old, married male who lives in (39%) Duluth/Superior (14% live in Minneapolis/St. Paul) and has 3.8 people residing in his household. He has completed 15.5 years of school and is a professional with a mean family income of \$27,768. He has been boating on Lake Superior for more than 12 years and is a member of one or more boating organizations. Boat club representation is shown in the following table:

Boat Club Membership

U. S. Power Squadron	27.1%
Apostles Is. Yacht Club	21.1%
Duluth Keel Club	19.6%
U. S. Coast Guard Auxiliary	9.2%
Great Lakes Cruising Club	4.5%
Wayzata Yacht Club	3.4%
Other	15.5%

His Boat

The average sailboat on western Lake Superior is 27.18 feet in length and the average powerboat is 24.88 feet. However, there is considerable variation in type and length as shown in the following table:

Recreational Boats on Western Lake Superior

Type	Number	Avg. Length
Sail	72	18.89'
Sail with outboard auxiliary engine	89	23.75'
Sail with inboard auxiliary engine	151	33.26'
Total Sail	312	Avg. Sail 27.18'
Motor outboard	108	14.27'
Motor inboard/outboard	109	21.24'
Motor inboard	114	38.21'
Total Power	331	Avg. Power 24.88'
Total	643	Avg. Boat 26.00'

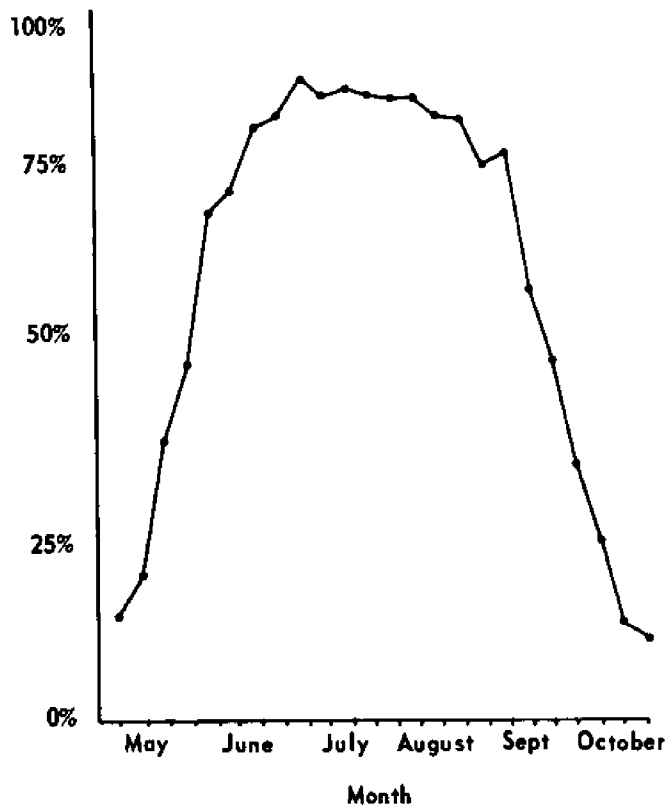
Although he has sailed on the lake for more than 12 years, the Lake Superior boater has owned his present boat for only 4.5 years. This indicates that the Lake Superior boater periodically trades-in and updates his boat. Most boats are individually owned (only 13% are owned in partnership) and contain a head (82%) and sleeping accommodation (88%) for five persons.

Boat Use

Lake Superior is commonly thought of as having a short boating season, however, the data did not show this. Fifty percent or more of respondents show high or medium use of their boats from early June to late September. This indicates a four-month season, but actual boat use extends for a full six months with an average of 44.6 days of boating. A typical day's outing is 5.4 hours while the typical length of weekend use is 48.8 hours.

Boaters were asked to indicate frequency of boat use for the months May through October according to the categories: No Use, Low Use, Medium Use, and High Use. The following graph shows the combined responses of high and medium use.

High and Medium Boat Use by Month



The boaters were asked to list the most common boat uses in order of frequency. Column 1 lists the first priority purpose of boat use on western Lake Superior. Column 2 lists the rank of the first four priority uses. (For

example, 206 or 46.1% stated that the most important use of their boat was for cruising and a total of 331 boaters mentioned cruising as one of the four most important uses of the boat.)

Purpose of Boat Use

Type of Use	First Priority Use	First, Second, Third or Fourth Priority Use
Cruising	46.1%	74.0%
Fishing	15.7%	35.1%
Family Outing	14.3%	44.5%
Entertainment	8.3%	34.5%
Racing	5.6%	17.0%
Charter	2.2%	3.1%
Business	.7%	1.8%
Other	2.7%	9.2%
No Response	4.5%	-----

From this table it may be seen that the most common purpose of these trips was cruising, followed by family outing, fishing and entertainment. Less than one percent used their boats primarily for business. Most boated only on Lake Superior including St. Louis Bay (81.6%).

Boater Needs

Among western Lake Superior boaters, the four most often expressed needs were for permanent berths, boating supplies (gas, oil, equipment, etc.), winter storage and anchorage areas. Needs were separated by port. The four facilities most needed were most available in the Apostle Islands area. By contrast, Duluth/Superior has the greatest need for these improvements. Individual facility needs are ranked by port and shown in the following table:

Facility Needs by Home Port

Facilities	Apostle Islands (N = 163)		Cornucopia (N = 14)		Duluth (N = 92)		Knife River (N = 42)		Other (N = 32)	
	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
Docking Facilities (season)	10	13.4	7	21.4	1	60.9	1	35.7	2	43.8
Docking Rental (daily)	4	20.3	10	14.3	11	40.2	3	26.2	4	40.6
Anchorage Facilities	5	18.4	10	14.3	4	51.1	3	26.2	2	43.8
Boating Supplies (gas, oil, equipment, etc.)	7	16.6	1	57.8	3	58.7	9	21.4	1	56.3
Pump-out Waste Disposal Facilities	11	11.0	4	28.6	2	59.8	14	7.8	14	31.3
Availability of Food & Refreshments	7	16.6	7	21.4	5	48.9	5	23.8	4	40.6
Overnight Accomodations	9	15.0	10	14.3	10	41.3	12	14.3	8	37.5
Hose and Water	12	10.4	4	28.6	7	45.7	12	14.3	4	40.6
Electrical Hookups	1	31.3	4	28.6	6	47.8	5	23.8	11	34.4
Boat and Laundry Facilities	3	20.9	10	14.3	14	29.3	9	21.4	11	34.4
Navigation/Weather Information	15	6.8	2	35.7	12	34.8	11	19.0	8	37.5
Haul Out	13	9.8	7	21.4	9	41.3	5	23.8	11	34.4
Winter Storage	2	21.5	2	35.7	8	44.6	5	23.8	4	40.6
Repair Facilities	5	18.4	10	14.3	13	33.7	2	33.3	8	37.5

Boaters frequently use shore-based facilities on voyages. Docking facilities, navigation and weather information, boating supplies, and availability of food and refreshments are the four most needed facilities as shown in the following table:

Facilities Needed by Voyage Duration

	Day Outing		2-3 Day Outing		3 Days or More	
	%	rank	%	rank	%	rank
Docking Facilities	44.1	1	52.6	1	47.0	1
Navigation/Weather Information	40.5	2	45.6	2	43.6	2
Boating Supplies	28.0	3	36.9	3	42.3	3
Food & Refreshments	25.1	4	35.8	4	40.9	4
Hose & Water	15.4	7	30.9	5	35.8	6
Anchorage Areas	20.8	5	29.5	7	26.2	9
Harbors of Refuge	18.3	6	28.6	8	31.3	7
Electrical Hookups	13.6	8	30.2	6	28.4	8
Pump-out Facilities (waste disposal)	12.3	9	27.1	9	38.7	5
Overnight Accommodation	6.3	11	14.3	10	15.9	11
Laundry Facilities	3.1	12	8.7	11	20.4	10
Repair Facilities	6.5	10	6.3	12	10.7	12
Other	1.8		2.7		3.1	

The boaters were also asked what shore-based recreation facilities they would like to see developed in western Lake Superior. The recreation facilities mentioned as most needed were picnic and beach areas as well as restaurants as shown in the following table:

Recreation Facilities Preferred for Development

	Great or Moderate Need	Little or No Need	Adjusted Percent	No Answer
Swimming Areas	30.2	33.1	-2.9	36.6
Camping (organized area)	29.5	28.0	1.5	42.5
Camping (isolated area)	33.7	27.1	6.6	39.1
Restaurants	40.9	22.8	18.5	36.2
Hotels	19.0	34.4	-15.4	46.5
Scenic Lookouts	22.1	30.9	-8.8	47.0
Hiking Trails	34.2	23.1	11.1	42.8
Picnic and Beach Area	44.1	18.3	25.8	37.5

Boater Expenditures

When making a voyage of two days or longer, 60.9% of boaters carry full provisions aboard. However, 22.6% do not. The following table shows the average expenditure per boat owner for services and provisions.

Average Daily Expenditures

Lodging	\$ 2.37
Restaurants	\$14.67
Auto Related	\$ 5.44
Amusement	\$ 4.56
Food Stores	\$13.49
Clothing Related	\$ 2.16
Sporting Goods	\$ 2.11
Drugs and Gifts	\$ 3.00
Taverns	\$ 4.51
Liquor	\$ 5.15
Other	\$ 2.83

Small Boats

The boaters surveyed were asked if they used a small boat on Lake Superior of the type normally transported on top of an automobile or towed on a trailer. Twenty-six percent said they operated a small boat on Lake Superior and, of those, pleasure and fishing were the most common uses as shown in the following table:

Use of Small Boats on Western Lake Superior

	Number	Percentage
Pleasure Boating	83	69.7
Fishing	69	58.0
Travel	14	11.8
Waterskiing	17	14.3
Other	12	10.1

Small boats were used for these purposes at least weekly by 52.1% of respondents.

Frequency of Small Boat Use

	Number	Percentage
Daily	24	20.2
Weekly	38	31.9
Monthly	13	10.9
Occasionally	42	35.3

Summary

Lake Superior boaters are characterized by high education and income levels. Most boaters use their boats only on Lake Superior and for a four-month season. The most common use of the boat is for cruising although, fishing and family outing ranked high as priority uses. On extended cruises the boat owner spends about \$60 per day, excluding fuel costs.

Respondents to the survey were about evenly split between sailboat and powerboat ownership, with powerboats being a bit more common. The average boat in western Lake Superior is 26 feet long and has belonged to the present owner for 4.5 years.

The boating season on Lake Superior proved to extend through a full six months and the average boater spends about 44 days on the water. With the population of approximately 800 boaters on western Lake Superior, this translates to about 35,700 boating days per season.* (Mandays of recreation provided is even greater because there is usually more than one person aboard a boat) In the case of extended cruising, boating provides 8,480 overnight mandays of recreation.

Respondents were asked to compare the quality of their boating experience on western Lake Superior with other areas they might have read about or experienced. Overall, they rated boating on western Lake Superior as a high-quality experience.

Quality of Boating Experience

High Quality	57.3%
Moderate Quality	25.3%
Low Quality	7.4%
No Answer	10.1%

Facilities needed on the western lake vary from port to port, but the survey found that the most complete

*It must be remembered that this figure does not reflect trailered boats.

facilities are available in the Apostle Islands area. Docking facilities rated overall as the most pressing need, both for permanent and transient berths. The need for permanent berths ranked highest in Duluth and Knife River. Boating supplies were most needed in small ports such as Cornucopia. Electrical hookups were most needed in the Apostle Islands. The data suggests what facilities and services ports of destination might develop or advertise for transient boaters.

In addition, boaters stated almost four to one that there is a need for an updated cruising directory for Lake

Superior. This suggests that a directory could be compiled by a public agency, private interest group or commercial firm. Alternatively, existing directories could be updated and made more widely available.

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