CANOEING IN THE MIDWEST

MARCH 1973

MINNESOTA CANOE ASSOCIATION

HUT!



In The Coils Of A Snake

Veteran paddler Andy Westerhaus punches through a roller on the Snake River near Woodland, Minnesota.



Wanted: 1000 New Members

The Minnesota Canoe Association is a large and growing organization and like any other big group or business, size presents both problems and benefits. The MCA, with very low dues, must depend entirely on volunteer help. While the membership has responded well to appeals for help, lack of a manned office and a listed phone number is a great detriment. Simply, we're hard to find. I'm sure an office with at least part-time help would result in more efficient record-keeping and correspondence and a sharp membership increase. We need members — we are operating with a budget that takes nearly all of our income — however, doubling our membership to 3000 would add only 25% to our expenses while doubling our income and making more money available for conservation, training and other projects. I think it would be impossible to look past 3000 members without some paid help, in fact when we approach 2500 members, we should be doing a lot of planning.

I would like to stress membership this year with the hope of reaching 2500 sometime in 1974. We plan on holding several outstate meetings with the hope of gaining new members, possible establishment of chapters and more involvement for our outstate members. I would like to see a higher renewal rate than the present 60%. Surely, we must expect that many people will be disallusioned after joining the MCA. I feel that HUT! alone (especially with the new look) is worth the membership fee, but you're missing a lot if you don't attend the activity meetings, get involved with the conservation and legislation groups, take in some of the cruises, attend the clinics, races and meetings of the pro racers and whitewater enthusiasts, contribute stories and photos to HUT!, build a canoe and share your skill, knowledge and ideas.

Our March meeting will be a builder's show at Apache Plaza. This will be a good chance to gain new members, but the cooperation of many members will be necessary to make it successful. If you are asked to help, do so, if you are not asked, volunteer. Wednesday, March 28 will be Member's Night — let's turn out in force — bring your friends, neighbors and relatives. There will be door prizes for members.

LARRY JOHNS

TABLE OF CONTENTS

The Wild Wolf *by Andy Westerhaus* 2
White Water Instruction *photos by Ralph Fernandez* 6
Gavia Immer — The Common Loon *by Judy McIntyre* 8
Deliverance on the North Platte *by Tim Bitney* 10
Can We Keep Our Canoe Waters Clear? *by John G. King and Arnett Mace, Jr.* 13
The BWCA Mineral Rights Problem *by Al Buchholz* 14

Cover Art By Dick Van Reyper

HUT! Magazine is published every other month starting in January by the Minnesota Canoe Association, Inc. a nonprofit organization, and is distributed to more than 1800 members, and numerous friends of the MCA across the nation. Our purpose is to distribute information about canoe sports and canoe camping, to preserve and promote wild rivers, to effect conservation of canoeable waterways, and to encourage canoeing as family recreation.

Pictures (glossies), cartoons, art work, announcements, letters, and articles of all kinds which serve to promote the purposes of the MCA are cordially invited. Contributions should be typewritten, preferably double-spaced, and should be in the hands of the editor by the 5TH DAY OF THE PREVIOUS MONTH, AD COPY BY THE 17TH. We regret that only token compensation can be paid for photographs, and that no compensation can be paid for literary copy, however, byline credit will be extended to all contributions. Contributions cannot be acknowledged and will be returned — usually within eight weeks — ONLY when requested and accompanied by a stamped, self-addressed envelope. Please DO NOT send documents. Address: HUT! 5804 Tracy Avenue, Minneapolis, Minn. 55436.

Statement of Policy: The Minnesota Canoe Association, Inc. cannot assume responsibility for the accuracy of the material presented by authors of the articles in the magazine. The pages of HUT! are offered as a clearing house of information and a forum for exchange of opinions, experiences, and ideas. The individual reader must evaluate this material for himself and use it as he sees fit. Every effort is made to present material of wide interest that will be of help to the majority.

Likewise, we cannot guarantee or endorse any product offered through our advertising. We invite constructive criticism and welcome any report of inferior merchandise obtained through our advertising, so that corrective measures can be taken.

HUT! STAFF

EDITOR
JOHN WYMORE
5804 Tracy Ave.
Minneapolis 55436
Tele. 925-3583

EDITORIAL ASSISTANT
BARB JOHNSON
8113 Oakmere Rd.
Bloomington, Minn.
Tele. 941-1850

ART DIRECTOR
MARY REINHART
1632 Edmund Ave.
St. Paul 55104
Tele. 644-2933

BUSINESS MANAGER
MARGIE JOHNS
2936 N. Simpson
St. Paul 55113
Tele. 633-6734

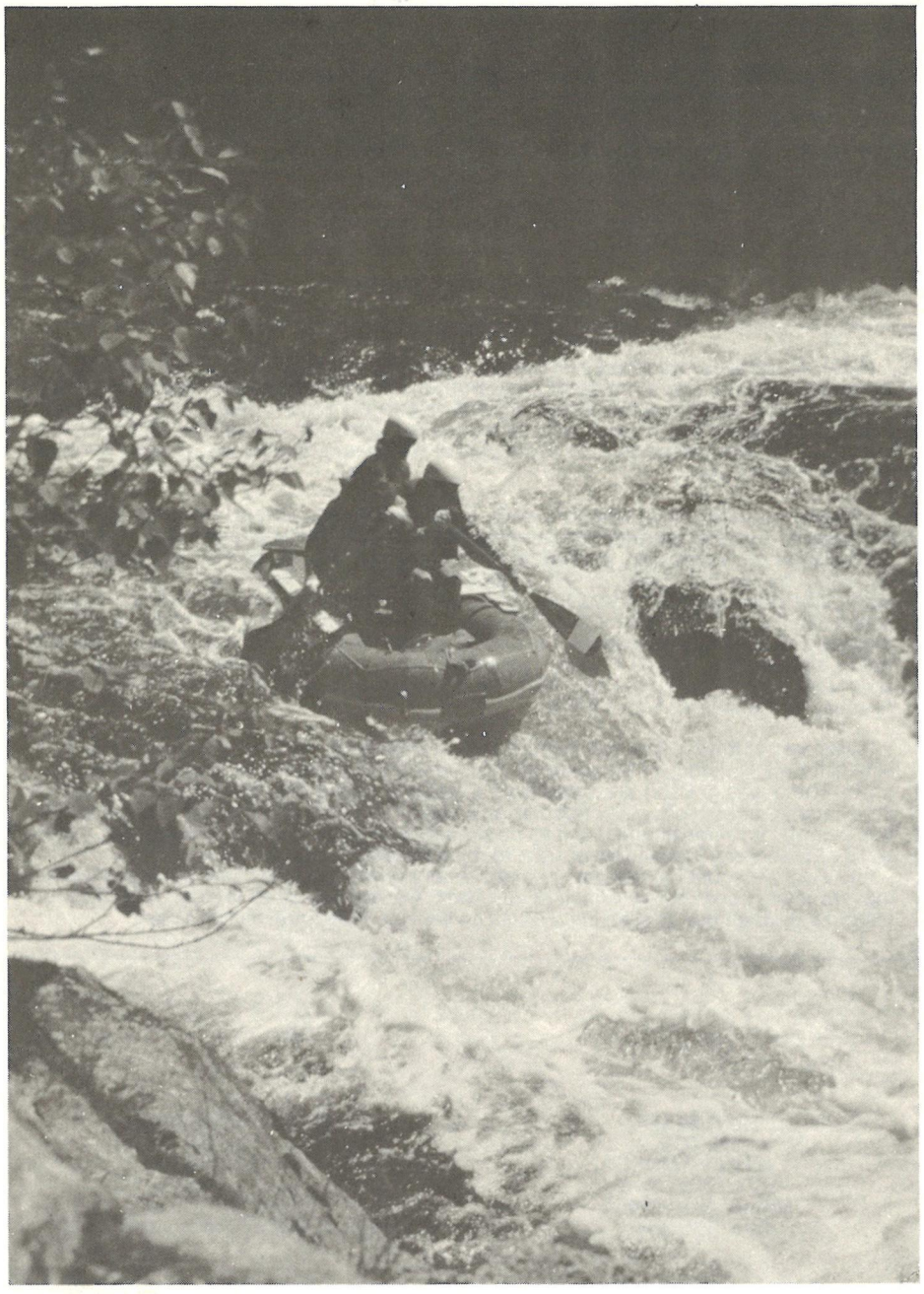
ADVERTISING SALES
BOB SCHUETZLER
1509 Champlin Rd.
Champlin 55316
Tele. 421-6883

NEWSLETTER STAFF

EDITOR
JOHN NOVOTNY
2130 Kings Rd.
Eagan, Mn. 55122
Tele. 454-8053 (Work, 456-2215)

ASSISTANT EDITOR
LOIS MARTIN
3613-37th Avenue
Minneapolis 55421
Tele. 788-0982

TYPIST
JACKIE SCHUETZLER
1509 Champlin Rd.
Champlin 55316
Tele. 421-6883



the Wild Wolf

by Andy Westerhaus

-photos by Andy Westerhaus

In 1968 the upper Wolf was placed in an elite group—a charter member of U.S. wild rivers. The Wolf's Canadian shield bed is in many places densely populated with 6 to 10 ft. granite boulders. These boulders have been rounded and smoothed by the glacier which moved them. These boulder fields combined with an uneven river gradient provide sensational rapids boating. Like its namesake, it is at times wild and fierce, then again, tame and friendly as a fat old house dog.

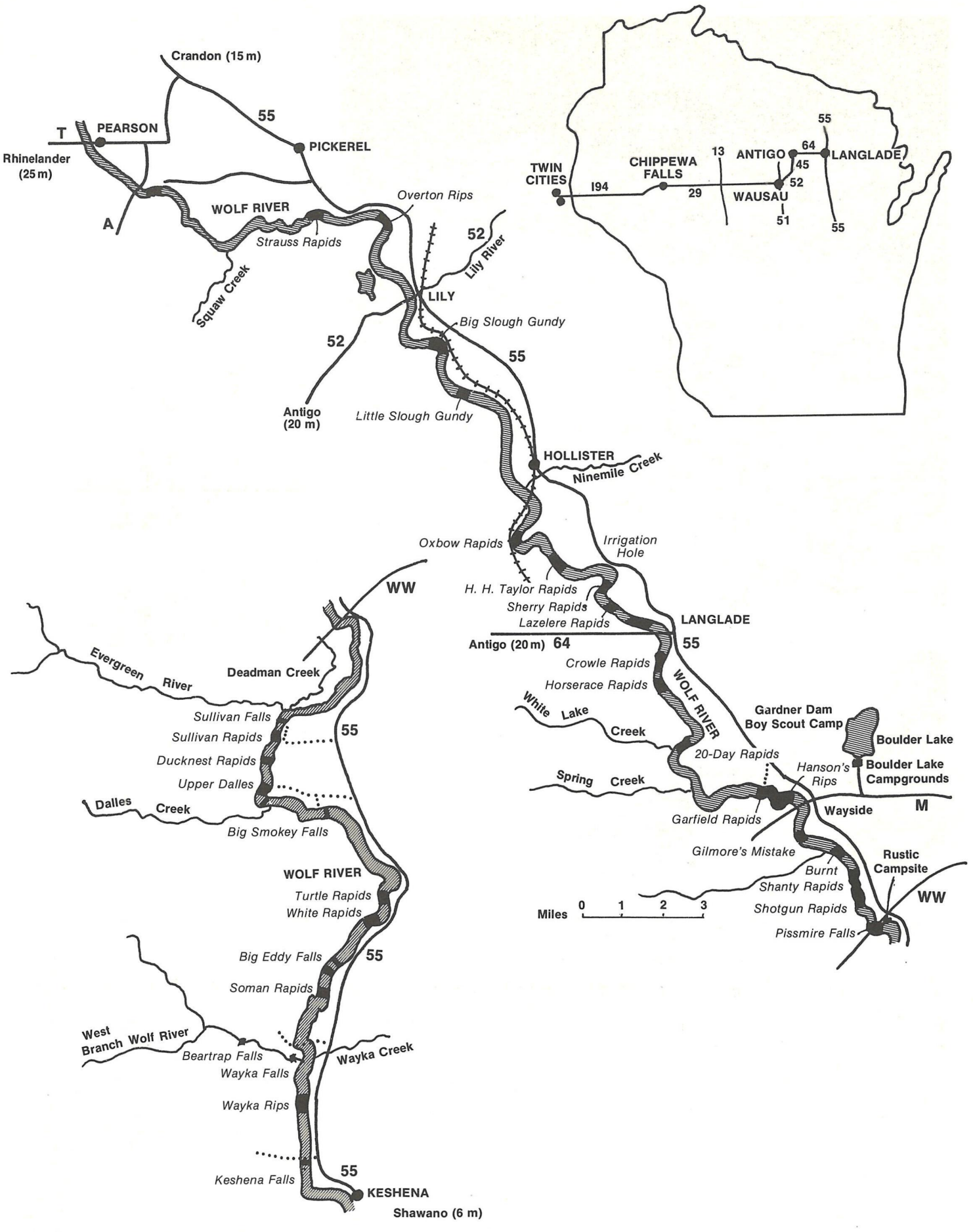
The Wolf is about 250 miles east of the Twin Cities. Rustic campgrounds are available at Pismire Falls, the Dalles, Big Smokey Falls, and near Turtle and White rapids. A national forest campground is near Boulder Lake. A nice private campground (without frills) is available just upstream from Langlade. Rafts may be rented near Langlade.

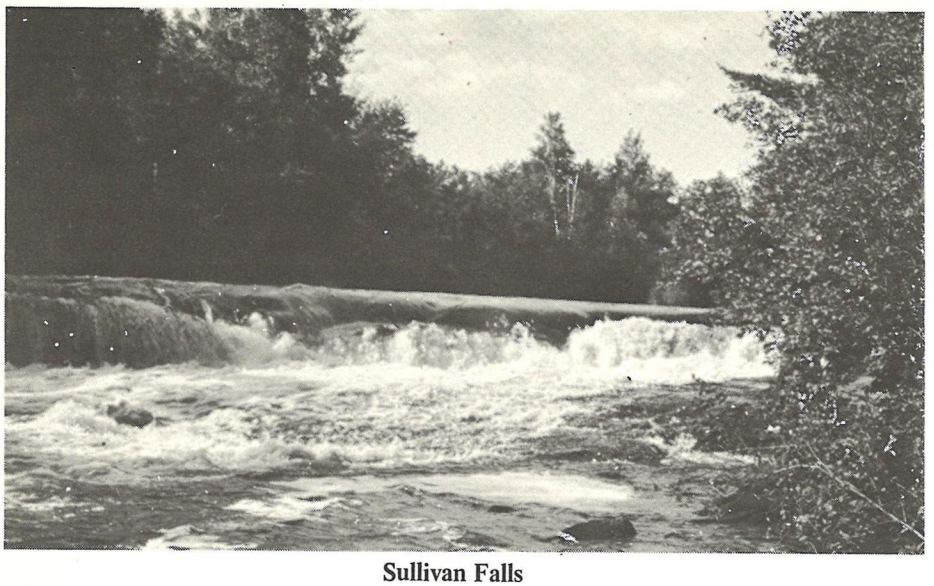
I strongly recommend a ride on the Wolf for each MCA member with an adventurous spirit. Water levels are important in the selection of which segment to run. Boaters have been using Cap Buettner's stage marker (inquire at Langlade). It reads in inches–anything from 0 - 30 inches is possible, however readings above 12" are not common in summer.

A suggested two day weekend is as follows: If the river is above 8", canoe Lily to Langlade on day 1. If the river is below 8" then canoe from the bridge above Turtle Rapids to the bridge below Soman Rapids. Portage both drops of Big Eddy Falls on the left. If the day 1 segment was not too difficult then canoe Langlade to M or WW on day 2. If day 1 was difficult then raft some or all of the river between Landlade and WW on day 2.

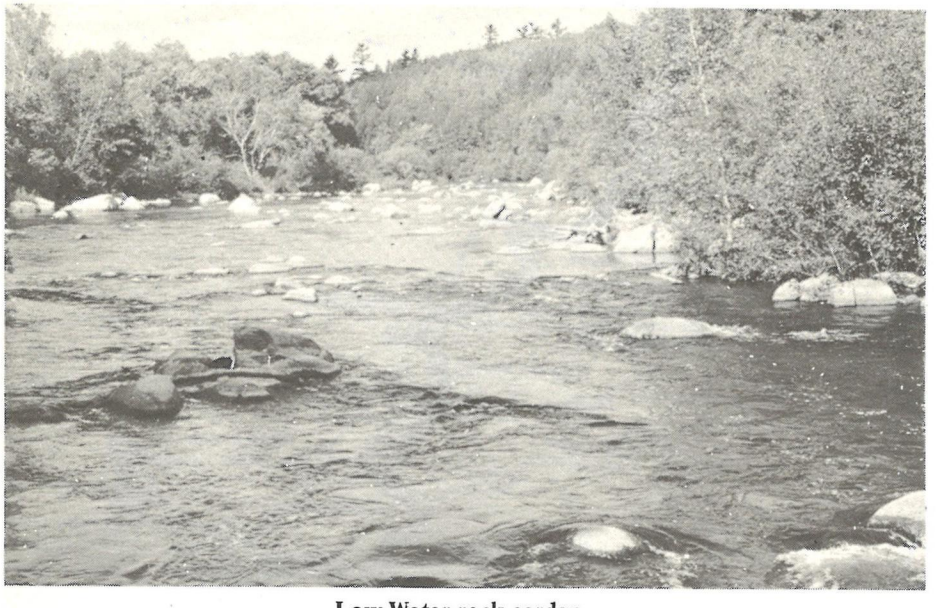
For experienced kayakers the irrigation hole to Langlade segment is a nice "quickie". Then paddle Garfield then Pismire. The next day put in just above Shotgun and pull out at Pismire. In again at the base of Sullivan Falls and take out at the top of Big Smokey.

About a mile downstream from Lily the paddler encounters a log jam, a reminder of the logging days on the Wolf. The log jam is easy to run, but stay away from the protruding logs. Some nice warm-up rapids are next. Little Slough Gundy Falls is the most difficult rapids on the Lily to Langlade segment. It's preceeded by quiet water and turns slightly to the right. Scouting is advised. The Oxbow is named for the U shaped bend the river makes. It flows almost due west along a

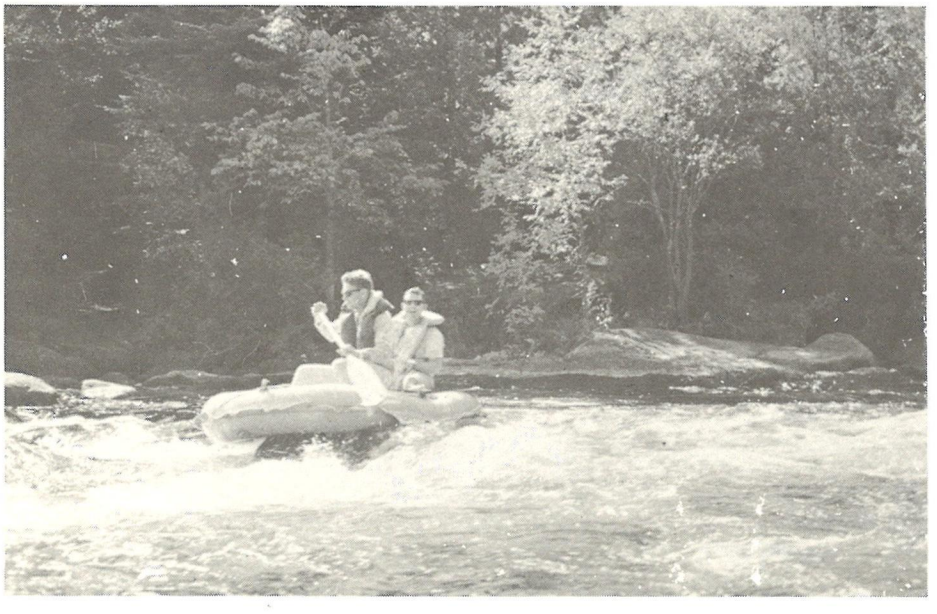

Crandon (15 m)
55
T
PEARSON
Rhinelander (25 m)
PICKEREL
A
WOLF RIVER
Overton Rips
Strauss Rapids
Squaw Creek
52
Lily River
LILY
Big Slough Gundy
52
55
Antigo (20 m)
Little Slough Gundy
HOLLISTER
Ninemile Creek
Oxbow Rapids
Irrigation Hole
H. H. Taylor Rapids
Sherry Rapids
Lazelere Rapids
LANGLADE
Antigo (20 m) 64
55
Crowle Rapids
Horserace Rapids
WOLF RIVER
White Lake
Creek
Gardner Dam
Boy Scout Camp
Boulder Lake
20-Day Rapids
Hanson's Rips
Boulder Lake Campgrounds
Spring Creek
Garfield Rapids
Wayside
M
Gilmore's Mistake
Rustic Campsite
Burnt
Shanty Rapids
Shotgun Rapids
Pissmire Falls
WW
Miles 0 1 2 3
WW
Evergreen River
Deadman Creek
Sullivan Falls
Sullivan Rapids
55
Ducknest Rapids
Upper Dalles
Dalles Creek
Big Smokey Falls
WOLF RIVER
Turtle Rapids
White Rapids
Big Eddy Falls
55
Soman Rapids
West Branch Wolf River
Beartrap Falls
Wayka Creek
Wayka Falls
Wayka Rips
55
Keshena Falls
KESHENA
Shawano (6 m)
TWIN CITIES
I94
CHIPPEWA FALLS
29
13
ANTIGO
64
45
52
WAUSAU
51
55
LANGLADE
55



Sullivan Falls



Low Water rock garden



Typical Wolf River rapids

high bluff on the left bank then doubles back heading east on the other side of this bluff. The first leg of the U is quiet, the second leg is a delightful mile of broken water rock dodging. Above Langlade three closely spaced rapids provide a great finish to this run.

Below Langlade the rapids are longer, bigger, and more complicated. Between Langlade and the Boy Scout camp the river swings away from the road and provides a semi-wilderness feeling. The rapids are densely populated with boulders requiring extensive maneuvering. A foot bridge with low clearance indicates the Gardner Dam Boy Scout camp has been reached. About ½ mile downstream is a suspension bridge. The Garfield Rapids begin just upstream from this bridge. From here it's almost continuous rapids down to Highway M so initial scouting is suggested. Hanson's Rapid is in this last segment. It is preceded by a quiet pool and turns slightly to the right at its start. This one has a new ingredient -- ledges. It's short, so scouting and a possible portage are not too bad.

Gilmore's mistake makes up for the mile of quiet water after highway M. This rapid is named for a logging company scout who traveled upriver to this spot. The river was overgrown with brush, and he assumed the river began from a large spring at this point. A large granite outcropping forms the left bank. Scout the ledge which is about 100 yards downstream from the start. The river now enters Indian-owned Menominee County, home of the most beautiful forests and dalles in the Midwest. Burnt Shanty Rapids is characterized by an island near the left bank. Stay near the right side of this island or near the right bank of the river proper.

In my estimation, Shotgun is the most beautiful rapids east of the Mississippi. This rapid is preceded by a few hundred yards of large boulders which nearly block the view downstream. The water flows slowly around these boulders so there's no cause for concern. Then comes the rapids—over a mile of continuous broken water in a narrow, twisting, rock garden flanked by dense hardwoods and evergreens. The sounds, sights, and smells are grand. The rapids finish strong—a narrow steep drop with some sneaky rocks—then its a quiet pool. . .some instant replays and some lasting memories. There are many rapids like Shotgun on the Wolf.

County road WW divides Pismire Falls; a rapid starting and ending with a ledge. the bottom ledge is tricky, so a quick scout is a good idea.

Below Sullivan Falls the Wolf's boulder bed rapids are replaced with flat water and steep ledges. Each rapid should be scouted. Those with open boats should portage the upper part of Sullivan rapids, Upper Dalles, and the Lower Dalles. Big Smokey, like Sullivan Falls, has been run but neither are recommended.

Turtle and White Rapids are boulder bed again, and are relatively short; but the volume is larger than the above sections. Willows, tall grass, and sand banks give one the impression that the Wolf is nearly spent and off the Canadian Shield. Big Eddy Falls destroys this illusion. Big Eddy consists of two big drops about 100 yards apart. Hydraulics at the base of each drop are nasty. The view from the middle of the river looking back at Big Eddy is unforgettable.

The Wolf is quickly becoming the most popular rafting stream in the country. Rafts tend to hang up and bund up in narrow areas so caution must be exercised when approaching constricted areas with poor visibility.

A complete and accurate description of the Wolf is found in "Canoe Trails of Northeastern Wisconsin". It may be in your local library or order from:

Wisconsin Trails
6120 University Ave.
Madison, Wisconsin 33705

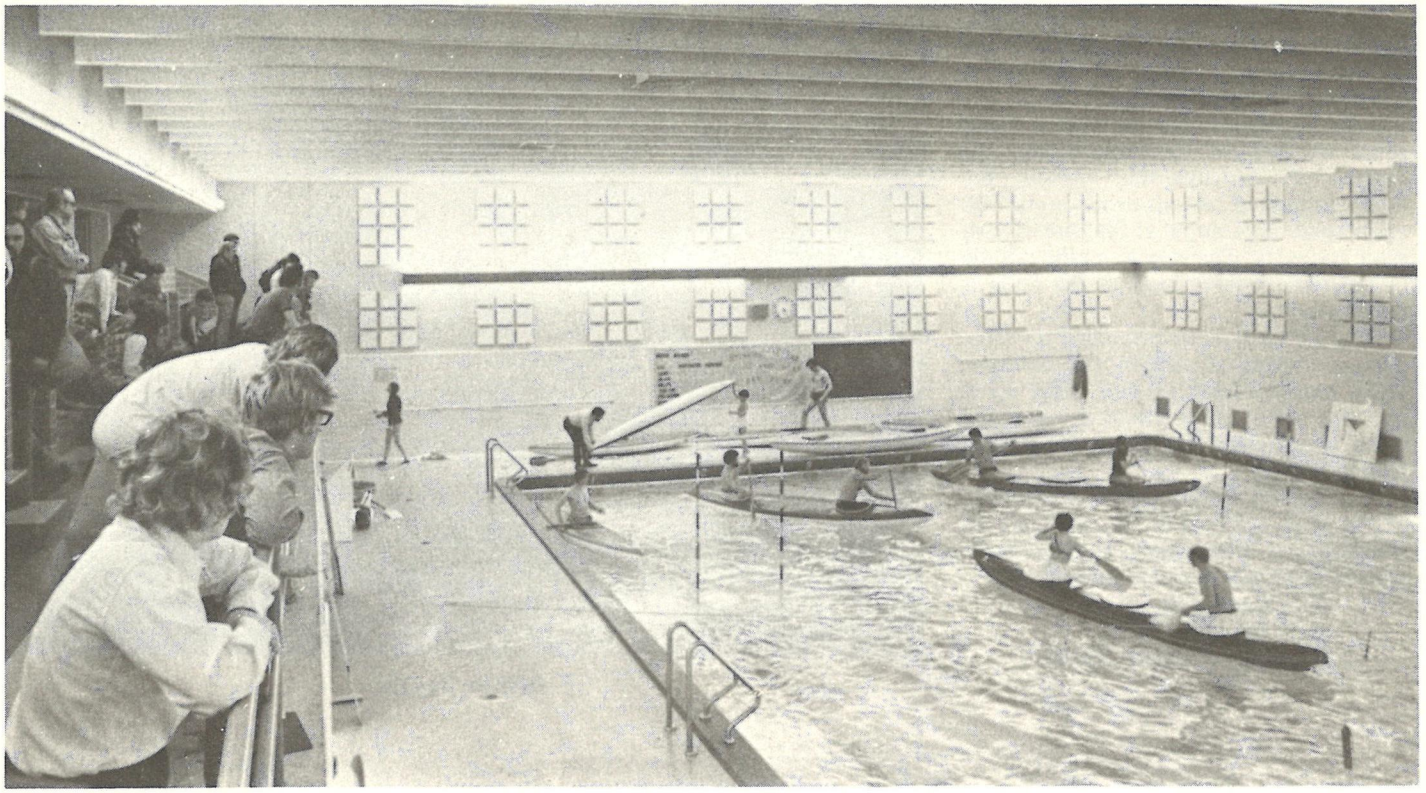


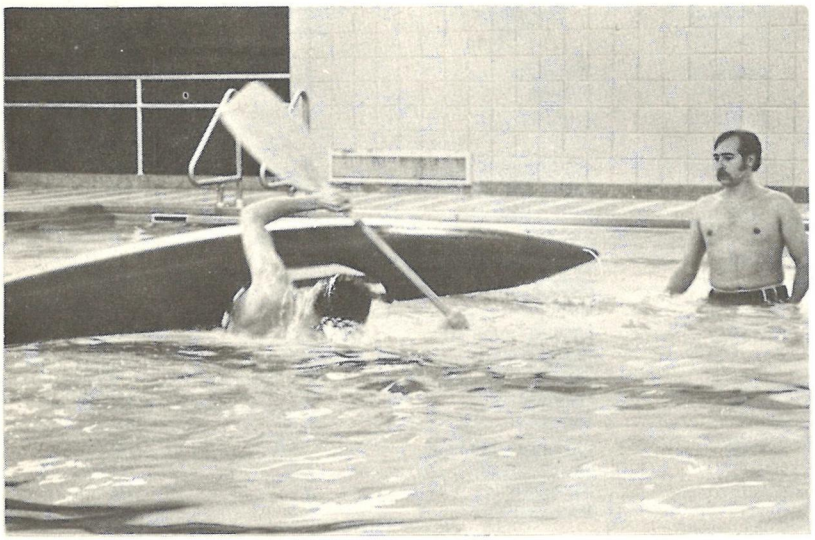
Sullivan Rapids

Put In	Take Out	Length (miles)	Gradient (ft./mi.)
County T bridge at Pearson	Highway 55 Wayside Park	9	Less than 5
Highway 55 Wayside Park	Highway 52 Bridge at Lily	4.5	Less than 10
Highway 52 Bridge at Lily	Hollister	6.5	Less than 10
Hollister	Irrigation Hole	5	14
Irrigation Hole (Dierck's landing)	Langlade	3	14
Langlade	Boy Scout Camp (ask permission)	8	14
Boy Scout Camp	County M Bridge	2	32
County M Bridge	County WW Bridge	4.5	19
County WW Bridge	Sullivan Falls	4	Less than 5
Sullivan Falls	Big Smokey Falls	5	About 10
Big Smokey Falls (Bridge access at County M 1½ miles below Big Smokey is easier)	Keshena Falls (Bridge access 1 mile below Soman is good)	12	Less than 10

Rapids or Falls	Miles from Put In	Difficulty (Note 1)
Wendigo	2	II
Strauss	9	II
Overron	1	II
Big Slough Gundy	3	II
Little Slough Gundy	3.5	III-
Zirk's Run	0	II
Oxbow	2.5	II
H. H. Taylor (Cedar)	1	II
Sherry	1.5	II+
Lazelere	2	II
Crowle	1	II
Horse Race	2	II
20 day	4	II
Garfield	0	III
Hansons	1.5	III
Gilmore's Mistake	¾	III
Burnt Shanty	1.5	II+
Shotgun	3	III
Pismire Falls	4.5	III
Sullivan Falls	0	V
Sullivan Rapids (1st Drop)	½	IV-
Sullivan Rapids (2nd Drop)	½+	III+
Ducknest	1	II+
Upper Dalles	2	III+
Ledge	2+	III
Lower Dalles	2½	IV
Big Smokey Falls	5	V
Turtle	3	II
White	4	II
Big Eddy (1st Falls)	5.5	IV
Big Eddy (2nd Falls)	5.5+	IV+
Soman	7	II
Wayka Rips	10	II

Note 1: International Scale of Difficulty rated at medium flow. Add 1 grade for high flor. III is difficult for open canoes, IV is difficult for decked boats, V is not recommended. Garfield, Gilmore's Mistake, Pismire, Sullivan Falls and Rapids, Upper Dalles, Big Smokey, and Big Eddy are accessible by car if there is any doubt about river difficulty. Lower Snake and Kettle are grade II.



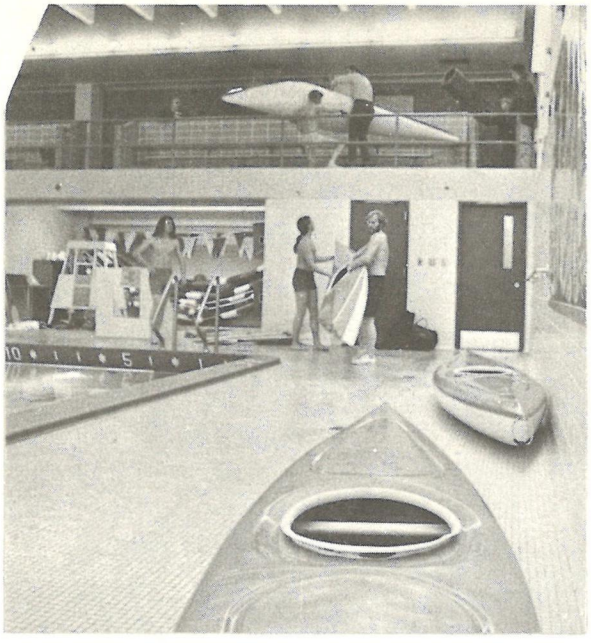


Whitewater Instruction

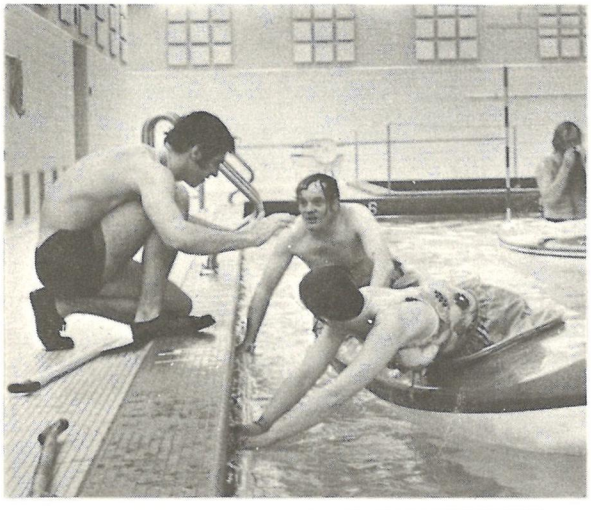
HUT! photographer Ralph Fernandez catches some of the action and reaction at the Thursday night and Sunday kayak and canoe classes.

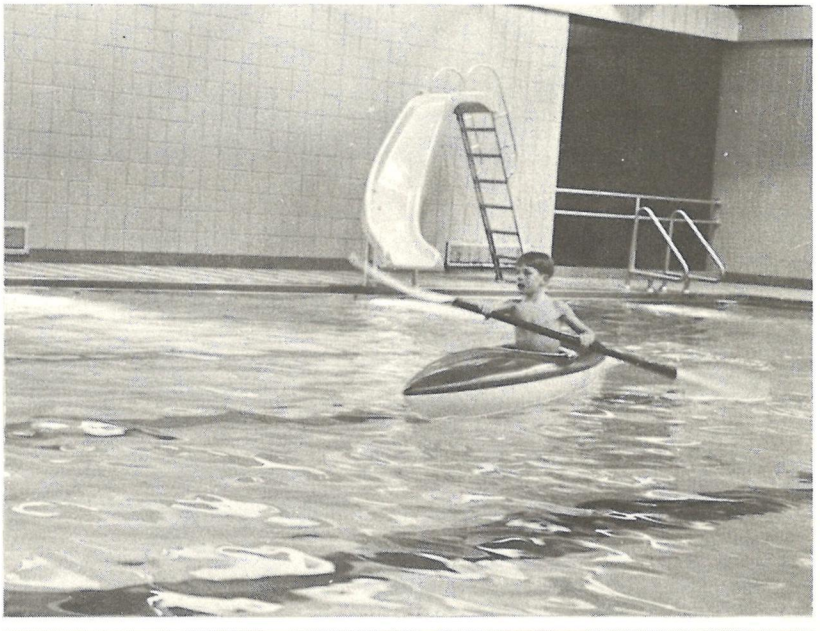


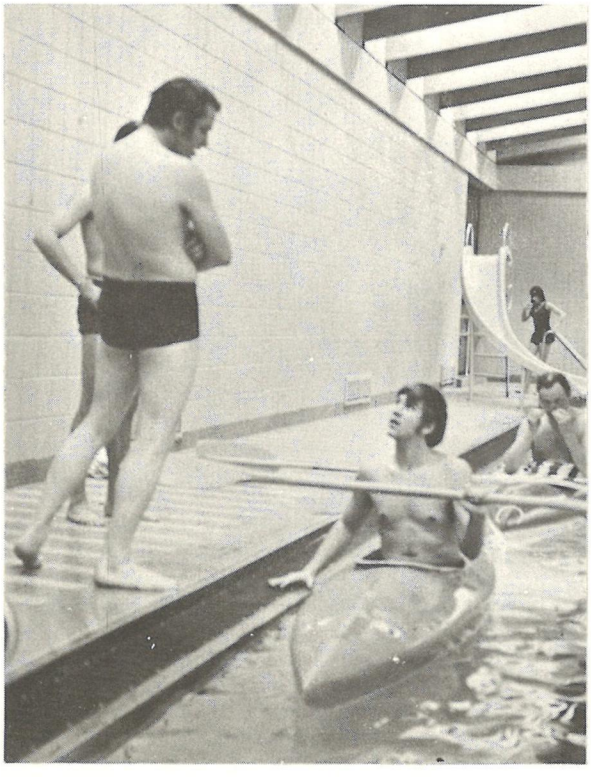






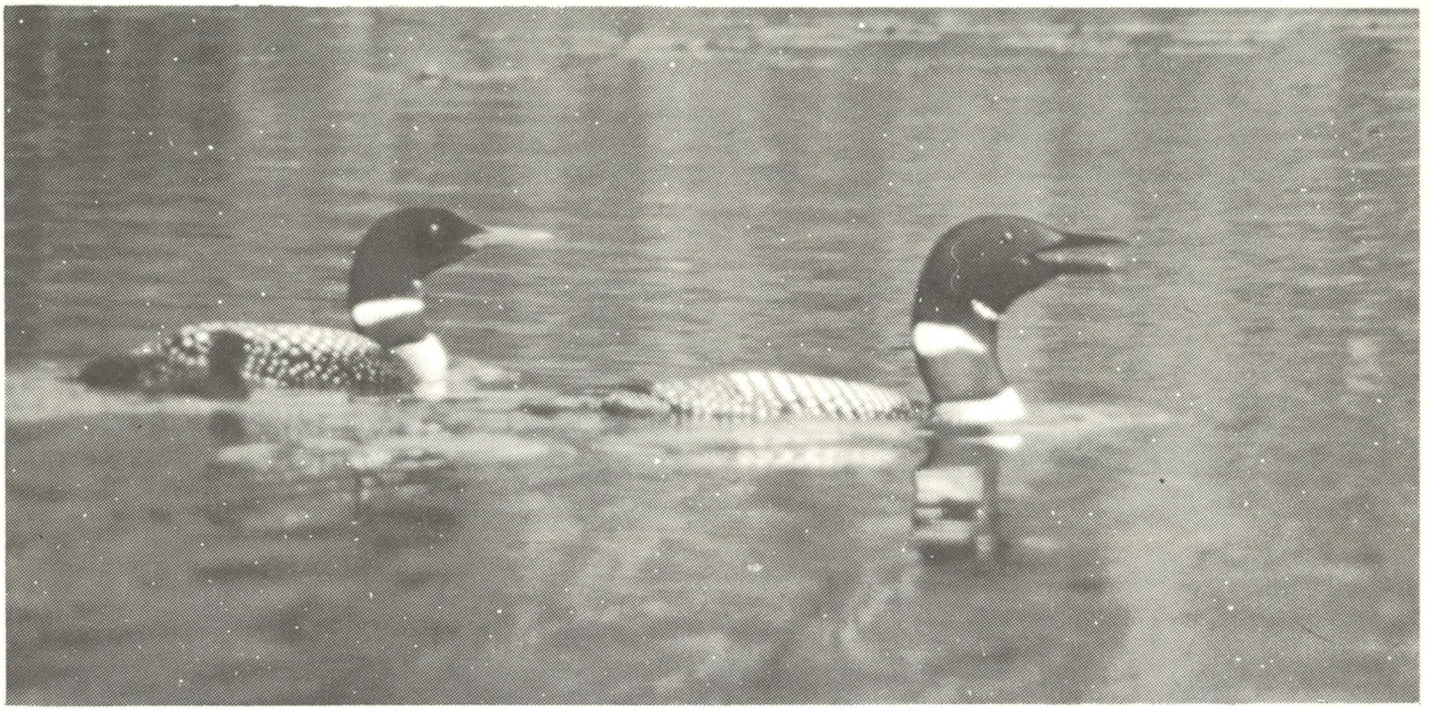







45
50
55

Gavia Immer — The Common Loon



Pair with two-day old chick. The adult in front is giving a tremelo, or threat, call, in defense of its young.

Judy McIntyre is a Zoologist at the University of Minnesota and will be doing her doctoral dissertation on certain aspects of the Loon's behavior. Stapled in this issue of HUT! you'll find the Project Loon Watch Questionnaire which is one of Judy's research tools. We're very happy to distribute the form to MCA members and trust that anyone sighting loons will use it.

by Judy McIntyre

It is three o'clock in the morning. Echoing across a lake and penetrating the sleep of a weary canoeist comes the wail of a loon. This vocalization more than any other sound of the north expresses the essence of the wilderness. Yet its meaning is just one of the many questions still unanswered about our State Bird, the Common Loon. Similar vocalizations are used to summon mate or young, but until we are able to set up some nocturnal experiments, this call will remain another mystery.

Other calls are beginning to be understood. The yodel is territorial, given by the male on its own lake, and may be termed the "song of the loon". The tremelo, frequently referred to as the laughing call, is actually a threat vocalization, used both in defense of territory and of the young. The flight call is a variety of the tremelo, although it has a rhythm different from the latter. There are several "talking calls", most of which are soft and brief and serve as contact calls to link members of a pair, or parents and young. Altogether there are four basic calls with nearly a dozen variations.

Loons arrive in Minnesota in early April. They winter off all North American coasts, with the heaviest eastern concentration from the mid-Atlantic states to Florida, and along the coasts of Washington and British Columbia on the west. Although they form large concentrations on Lake Michigan during fall migrations, records from Illinois northward indicate that they make their spring migration non-stop to their summer range. Large concentrations do sometimes occur on northern rivers which have open water before the neighboring lakes do. But within a day or two following ice break-up on the nesting lakes, the loons fly to them.

Nesting begins in Minnesota in early May. Should a nest be destroyed, loons may re-nest, and may make up to four nesting attempts. Hatching dates vary from early June through July.

Experiments we have made indicate that the raccoon is the primary mammalian predator. Islands are chosen as nesting sites if they are available, and these are safe from raccoons. However, should humans interfere, as for example, a fishing boat anchored near a nest, or campers on a nesting island, the loon slides into the water and leaves its eggs. The nest is then left open to avian predators, primarily crows and gulls. If the eggs are not destroyed, desertion is likely to result if several hours pass before the loon can return.

Both sexes incubate the eggs and care for the young. Adult plumage is the same for both sexes. In measuring over 100 specimens, I have found males to average larger than females, but there is much overlap. It is impossible to be certain which sex is which in a given pair unless one of three behavior patterns can be observed: males give the territorial call, males are on top during copulation, and females lay the eggs.

Incubation lasts from 27 to 31 days, and the young usually hatch one or two days apart. Chicks are fed by the parents for up to 10 weeks. For the first two weeks they are frequently carried on the adults' backs. They can't crawl under the adult to be brooded like terrestrial birds, such as chickens, do. Back-riding is really a form of brooding, or warming, of the young.

The results of 87 successful hatchings in 1972 showed that half of the broods had two young, and half had one. Two pairs were reported to have had three young each. The average young per brood was 1.62; in 1971, the average for 107 broods was 1.52. There were 132 lakes on which known production of young was recorded. Fifty to sixty percent of the lakes under 200 acres had pairs with young. All lakes from 400 to 750 acres that were reported had at least one pair with young. It would appear that the larger lakes produce more young; however, 86.8% of all Minnesota lakes are smaller than 200 acres. Therefore, smaller lakes may furnish the greater number of potential territories. Extremely large lakes of several thousand acres, if they contain a complex of bays, also provide habitat for numbers of loons. A census of pairs on 116 lakes shows that on those up to 500 acres, most (69% to 80%) accommodate only a single pair of loons.



Adult giving more intense defense display. Running across the water is thought to call attention to the displaying bird, and thus act to divert the attention of the potential predator away from the young.

Questions concerning the loon's ability to maintain its numbers amid increased home building and recreational use of our lakes is one of the major reasons for the importance of public help on Project Loon Watch. Two areas have been censused during my study. One shows a loon density increase of 40% over a survey in the same area 15 years ago. The other area I have censused for the past three summers has maintained a constant population. Yet, both of these are isolated regions with little use by man. Data from these surveys are necessary in order to establish a base line for the future, but we also need figures for lakes where traffic is increasing. Canoe routes offer this opportunity. Although an individual canoeist may think that reporting observations on a one-time journey is of little value, these same routes are used over and over throughout the summer. Thus, each observation acts as a part of a total report on each lake along the route.

In New Hampshire, the Audubon Society has been conducting annual Loon Surveys since 1970. The state's largest lake, 70 square miles, is occupied by only 14 adult loons, and produced but a single young in 1971. A lake of comparable size in central Canada was surveyed last summer. There were 19 successful breeding pairs which raised 24 young. A 35-square mile area of small lakes in Minnesota which I censused in 1972 had a population of 55 adults and raised seven young.

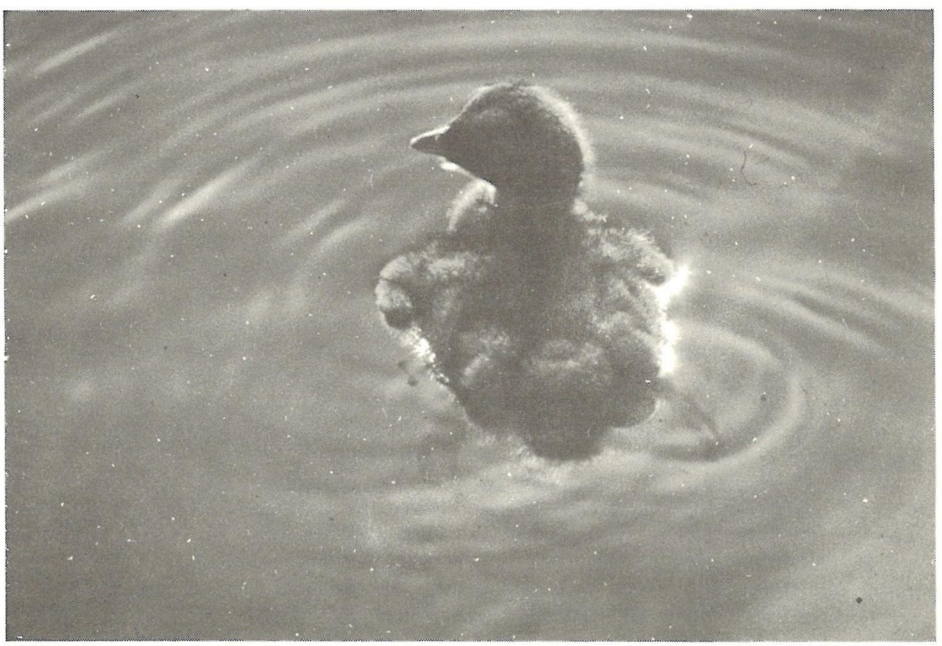
Massachusetts and Connecticut no longer have nesting loons. Michigan's loon population is not abundant, and the U.S. Forest Service is sufficiently concerned to look for answers to loon-camper relationships prior to the opening of a new recreational area in Upper Michigan.

We are fortunate to have what appears to be a healthy loon population in Minnesota. They nest as far south as Hennepin County and are abundant on the more northern lakes. Although it is hard to estimate the total state population, there are probably several thousand loons here every summer. If public cooperation continues to be as enthusiastic for the next few years as it has been in the past, we will be able to more effectively assess the relationships between man and loon. This will in turn provide a guide-line for maintaining our wilderness combined with maximal recreational enjoyment.

Almost all the data used in this article has come from returned Loon Watch questionnaires. My own studies have been largely behavioral, primarily an attempt to answer questions concerning social interractions. Loons are often thought of as "loners", perhaps because their territories are far apart. However, they congregate for ritualized Social Gatherings from midsummer until fall; they migrate in loose aggregations; they winter in bays and coves in small groups of 20 or 30 widely spaced individuals; and they are vocal both in the air and on the water during the breeding season. It would appear there is a biological advantage in maintaining some intraspecific contact. Perhaps one reason loons are retreating north in parts of their range is that they need to live in areas that can support large populations, and thus permit social interractions. The meaning of social behavior is only one of many unanswered questions. For example, we would also like to know if a population from one area migrates to a specific wintering ground; if the adults return to the same lake year after year; if the pair bond lasts more than one season; if the young return to the lake where they were hatched. To answer these questions and others, we have captured loons, banded them and marked them with colored wing tags. To date, there has been only one report. A loon which we banded at Blackduck, Minnesota was shot for a goose at Muskegon, Michigan during fall migration.

There are questionnaires for 1973 included for your use in this issue of Hut! Write for more copies when you plan your canoe trips this summer. And if, by some lucky chance, you should see a loon with a colored tag on its wing, don't write—CALL!

The object of these displays — a two day old chick. Young loons of this age swim well and can make short dives. However, they tire quickly and their best defense is not to dive, but to hide.





Deliverance on the North Platte

— Or —

It Didn't Even Seem Like a Good Idea Then.

by Tim Bitney

In an effort to expand HUT!'s appeal to those who may HATE canoeing, the following tale is recounted. Tim Bitney is a free lance photographer specializing in the Great Indoors.

The decision to undertake a canoe trip was a bit one-sided. My traveling companion, Murphy (professional optimist and ardent Nebraskan), had decided for both of us early in the day. Murf spent most of that afternoon practising the art of persuasive argument on me until in the interest of silence, I consented to make the journey with him.

That evening we set up our camp on a hill overlooking Glendo Lake. Glendo Lake is in Wyoming about 15 miles from the Nebraska border. The lake is the result of a dam constructed by the Army Corps of Engineers across the North Platte River. Our destination was a similar structure some 25 miles downstream known as the Gurnsey Dam.

While I prepared the evening's repast of burnt hot dogs and cold beans, Murphy, with his usual over-exuberance and joyous celebration of existence, was busily explaining to me the joys of the wilderness; the beauty of nature; the freedom such a land offers a man and the happiness one inevitably feels just being there. I told him, emphatically that if he did not cease that prattle immediately the blisters on my sunburned skin would burst and drop all over his ecstatic little body.

Philosophically Murf and I are diametrically opposed. While reality is screaming to me, often in terms of my own pain, he is off in hot pursuit of a sunbeam, a rainbow, a cloud, the dew, birds in flight, or any number of other fantasies. Such divergent dedications cause us both considerable and frequent fits of mutual intolerance.

We slept under the stars that night - both knowing the other to be an insipid wretch.

The next day dawned early—as dawns are oft want to do. We arose late—as we are oft want to do. Ignoring breakfast (or lunch) we loaded our canoe for our short but courageous confrontation with nature.

Our objective was to conquer the miles of untamed wilderness with our skill and bravado. To overcome nature's obstacles and to show that man is superior to the world in which he lives. We would prove that we could meet nature on her own ground and win, even while playing by her rules. Man in the wilderness, naked, and alone. Survival the winners prize; death the losers spoils. Those were our thoughts as we loaded our frail craft in preparation for THE CANOE TRIP.

Along with our skill and bravado we took only what we deemed absolutely essential when the highly advanced state of acculturation is considered.

Enumerating more fully, we bought: 2 sleeping bags, 1 tent, 2 cans of pears, 1 can of Spam, 1 can of pineapple, 2 canteens, 20 lbs. of camera equipment, 1 collapsable water container, 2 backpacks, 3 plastic bags—large with holes (the significance of which will be apparent later), 3 life jackets, 1 loaf of bread, assorted spices, 1 bottle suntan lotion, 1 can mosquito repellant, sundry cooking utensils, 1 hatchet, 1 flashlight, 1 coleman lantern, 2 boyscout cook kits, 1 coleman stove, 1 girlscout knife, 1 roll of paper towels.

All of this fitted snugly into the seventeen foot canoe along with Murphy and myself. Thusly equipped we shoved off to face the myriad of hidden dangers that awaited us in the 25 miles ahead.

As most of you probably know, the Boyscout motto is "Be Prepared", and prepared we were. The world could have

ended and we would have had at least an even chance to survive–if our paper towels didn't get wet.

Before going any further, I feel that I should explain to you two of the finer points in the art of canoeing. One concept I found somewhat difficult to grasp immediately is the difference between the bow and the stern of the canoe. Now, on most watercraft, the bow (front, to you landlubbers) is the pointy end and the stern (back) is the blunt end. Unfortunately on the canoe, such a simple distinction is not possible. It seems that canoes are built so that *both* ends are pointy. (The best explanation I can give is that what with unions, high labor costs, and specialization in manufacturing, it is far less costly to have two pointy ends. It eliminates the need to employ both a pointy end maker and blunt end maker. The pointy end maker can do the job of two people for less cost. This arrangement also frees a significant number of blunt end makers to work in barge factories–barges, of course, have two blunt ends. Suffice it to say, however, that canoes in fact do have two pointy ends.) My experience is that when empty it is impossible to determine with any accuracy which end of a canoe is the bow. The designation of the bow is not arbitrary, however, Rather it is a unique combination of several elements. One must consider both the direction of the canoe's travel and the orientation of the crew–these two elements do not necessarily coincide at all times.

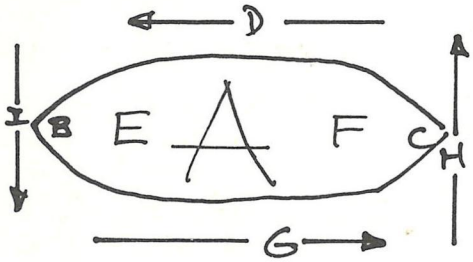


fig. 1

Looking carefully at Figure 1, we can see that a canoe is schematically represented by Object A. B and C represent the two ends (both pointy) of Object A. When the occupants of Object A, that is E and F, are both (this is quite important) facing end C and Object A is traveling in direction G, then and *only* then is it possible to state with any confidence that end C is indeed the bow and end B is indeed the stern. If, however, occupants E and F are oriented in directions other than a common one and/or Object A (the canoe) is traveling in a direction contrary to the direction of orientation shared jointly by occupants E and F, then determination of bow and stern

Putting all this more simply, both the occupants and the canoe should be traveling in the same direction before you traveling in the same direction before you can safely label the bow (leading end of the canoe under the preceding conditions) and the stern (trailing end providing the same are met). You may wish to run over this again to be sure that you understand it before I continue.

Moving on, then, to the second point in my explanation of canoeing's intricacies, I will explain the duties of the crew.

A canoe generally has a two-man crew, the bow man and the stern man. The bow man (so named because of his position in the craft) provides the majority of the canoe's forward momentum. The bow man must also warn the stern man of any barriers, obstacles or immovable objects that the canoe is in imminent danger of hitting. The stern man is required only to steer the canoe and to take an occasional stroke with his paddle to content the bow man. With the bow man warning of any obstacles, it is actually possible for the stern man to occupy himself with other chores. If you spend some time observing canoeists you may find the stern man eating pistachio nuts, playing the banjo, picking his nose, taking a short nap, or perhaps counting piles of buffalo chips. These preoccupations are facilitated greatly by the fact that the bow man faces the opposite direction and turning around suddenly while in a canoe is one of many items on a long list of No-No's.

With Murf as my mentor, I was relegated to the position of bow man. He told me that the stern man had many sophisticated duties to perform and since I was a novice and he more experienced, he would take the stern. While I had serious doubts concerning the sophistication of buffalo chip counting, my alternatives were somewhat limited. I therefore took the bow.

The trip started peacefully. The sun shone brightly in the blue Wyoming sky and the water ran swiftly easing my burden to some extent. We had been informed by reliable sources that this section of the North Platte contained no rapids (real canoe people call these rapids "white water"). It was with great relief that I had received this news because I really become frightened of things that threaten the continuation of life.

Murphy and I had traveled some two hundred feet in our 25 mile journey when I heard a distant roar. Because I was a novice I decided to use my status to the fullest and ask a stupid question.

"What's that?" says I.

"White water," says he.

"Shit!" says I.

Continuing on some hundred feet we put to shore. I personally thought that stopping the trip at this stage was a good idea, but was quite surprised to find Murf also willing to give up. Unfortunately he had no intentions of quitting but was going to study the rapids and decide the best route for us to take. It was my own personal opinion that there were two excellent routes open to us–around or back.

While sitting pensively in the canoe waiting for Murphy's return I noticed a man dangling on a platform high above the river. The platform was suspended from a cable anchored on poles on the riverbank. I thought he was a local resident who got his midmorning thrills by watching the carnage on the rapids beyond. Or perhaps he owned the only resuscitating unit for fifty miles and was waiting for business to float by. Neither thought seemed appealing to me at that moment. My curiosity piqued I started a conversation. I found that he was employed by the county to determine how much water was being released by the dam just upstream. I asked him if the rapids ahead were navigable. He assured me they were and added, to quell my obvious nervousness that only yesterday ten canoes full of Boy Scouts had gone through.

"Did they all make it?" I queried.

"Most of them," he replied.

"What happened to the others?" I asked with some hesitation.

"Well, they got about halfway down and their canoes went like this," and he made a gesture I have seen used in the description of a Saturn rocket taking off. Noting the sickening perpendicularity of this gesture from the horizontal, I prepared to disembark from shore and paddle furiously upstream. Before I could cast off Murf returned and assured me that he had found a way through the white water that would be both safe and enjoyable. I knew he was wrong on both counts and was about to tell him to go on by himself when he pushed us out into the current.

It was too late to turn back.

"Paddle! That's the only way we'll make it!" he was shouting from behind. And I was paddling–as hard as I could and as fast as I could.

"Faster!" was the scream next heard from the rear. I could go no faster. My arms ached, my hands were getting cramps from holding so tightly to the paddle and there was not enough air to fill my lungs. The current picked up speed and combined with my toil we were hurtling toward the rocks ahead at horrendous speed.

"Rocks!!!!!!!" I yelled just to be sure he wasn't still counting buffalo chips. PADDLE – PADDLE – FASTER – FASTER – the water was breaking over the bow–but I kept paddling. The rocks were all around us–but I kept paddling–from the rear he kept yelling "Watch the rocks!" but I could barely hear him over my screams and the tears in my eyes were making it difficult to see–but I kept paddling–foam and waves were all around and there was no way that I could remember the Lord's Prayer–so I switched to the National Anthem–but I kept paddling –the roar of the waves and water were deafening and my clothes were completely soaked–but I kept paddling–and crying–and screaming the National Anthem

at the top of my lungs—we began to take on water—but I kept paddling—the whole boat began to lean to the left—but paddle I did with all my soul as I have never paddled before—the water was up to my waist—but I kept paddling—a loud thud came from somewhere in the canoe and great fear welled up inside me—but I kept paddling—a hand touched my shoulder and I knew that God had come to take me away (I hoped He would understand about the National Anthem)—I kept paddling and blindly flailing the water—total exhaustion was near—it would not be long.

"Stop paddling," the voice from the hand said to me. I realized that all was lost and prepared to go with my maker. I stepped slowly out of the canoe and anticipated my first step to speed me to the place of judgment but instead I slipped in the mud and fell on my face.

We had run into shore. Murf was standing over me with his hand still resting on my shoulder, smiling and asking me, "Wasn't that fun?" I really cannot remember what profanity I uttered but I suppose that in any case it is not important.

Ten minutes or so passed before my body once again became responsive to my brain. During this time I took a visual inventory of my bodily appendages just to assure myself that I was all there. Murphy was wringing out his shirt and performing other domestic chores.

When Murphy deemed sufficient my time for recovery, he told me that we had best get the canoe all the way up on dry land. Until this time I myself was lying half in the water and half on the four foot embankment that constituted the shoreline of this section of the Platte. The only reason that I had not moved was due to total exhaustion. Now I had to move not only myself but a canoe fully located with gear and about 200 gallons of water up that hill.

It took us about fifteen minutes to drag ourselves and our small craft to a dry resting place. Once there we began to survey the wreckage. We had cleverly wrapped all items that should stay dry in those big plastic garbage bags. However, because all those big plastic bags had large plastic holes in them, everything got wet anyway. Everything includes not only the sleeping bags, the bread, our paper towels (survival without our Gala towels could be tricky) but also my camera equipment. There is nothing so sad as a soggy Minolta.

For the next hour we sat in the sun while things dried out. I was thinking about my dripping camera; asking with uplifted eyes such questions as, "Why me? Why is it always me?" as I calculated that only 23 miles, 4,650 feet remained of our trip. Murf was lying on his back soaking up the sunshine and enjoying God's marvelous universe. Nothing ever seems to bother that boy. There is something wrong with one of us—but I no longer feel competent enough to determine whom.

Mythical Long Distance Racing Trophy To Be Awarded in 1973

The MCA long distance racers have devised a rating system which they hope will encourage competitive canoeing. The system is based on points awarded for performances in certain races. The racer who amasses the greatest number of points during the 1973 season will be given the Mythical Long Distance Racing Trophy. This is destined to become one of the most prestigious and economical awards ever made.

Rating points can be accumulated by competing in either the professional or amateur divisions of the racing canoe class of MCA sanctioned events. A racer must compete in half of the sanctioned races to be eligible for the Trophy. These races will be combined pro-am events or professional and amateur races over the same course, in the same type canoes, at about the same time. Total elapsed time, including officially imposed penalties, will establish the standings for each race.

A point will be awarded to each team member for finishing the race course and another point for each team they beat. These points will be multiplied by a race difficulty factor decided by the Point System Committee. Since scores are recorded for individual paddlers, it will be possible to switch partners for different races. The events that will be scored in 1973 are listed below along with their difficulty factor.

Anoka	1
Sauk Rapids	1
Glenwood	1
Elk River	2
Marinette	3
Grand Rapids	3
Aquatennial	7

A total of five awards will be given in connection with the point system.

1973 MCA Most Competitive Long Distance Canoe Racer (Mythical Trophy)

1973 MCA Most Competitive Long Distance Amateur Canoe Racer

1973 Most Improved Racer

1973 Most Outstanding First Year Racer

1973 Old Man River (points times age for persons over 40)

The point system was first tried out in 1972. The financial resources of the long distance racing group were completely absorbed by the 1972 International Aquatennial Canoe Classic so that no funds were available to purchase a trophy, thereby setting a precedent for a mythical award. Certificates were awarded even though the Point System Committee forgot to sign them. The results of the 1972 season are given below.

	ANOKA	MARINETTE	SAUK RAPIDS	GRAND RAPIDS	AQUA	GLENWOOD	ELK RIVER	TOTAL	%
Total Race Points	**11**	**45**	**16**	**42**	**210**	**8**	**30**	**371**	**100%**
Steve Peterson	9	45		42	203		30	336	97%
Gene Jensen	11	41		39	203	8	28	330	93%
Lawrence Peterson	10	36	16	42	189		26	319	88%
Kenn Ketter	10	41	16	36	182	7	22	314	85%
Buzz Peterson	6	45		27	210		24	312	84%
Tom Olson	11	30		36	189	7	26	299	84%
Clint Wadell	5	36	15	33	161	2	18	270	75%
Dan Strot	2		15	33	161	2	30	243	71%
Jeff Howe	8	33	10	30	154			235	71%
Karl Ketter	8	33	10	30	154			235	71%
Glen Bennington	7	15	12	24	140		18	216	60% Am
Lonnie Anderson	7	15	12	24	140		18	216	60% Am
Joe Michael	4	12	11	6	147		20	200	55% Am
Dale Henneck	4			6	147		20	177	58% Am
Tom Walsdorf		18	13		126		14	171	55% Am
Ted Fulton			13		126	5	12	156	57% Am
Ron Burley	3	9	11	18	98	6	10	155	57% Am
Tim Dunnigan		12	7	18	98	6	10	151	42% Am
Keith Canny	5		3	21	91		22	142	45%
Greg Peterson	9		3		84		24	120	44%
Gary Neddermeyer		30	14	39	0	8	28	119	34%
Ken Szabla	0				112	0		112	49%
John Szabla	0				112	0		112	49%
Chris Bernie				12	70		8	90	32% Am
Scotty Merchant				12	70	4	8	90	32% Am
Henry Kovar			5		77	4	2	88	33% Am
Vince Martin			5		77	4	2	88	33% Am
Al Dubois		3	2		63			68	25% Am
Jeff Dubois		3	2		63			68	25% Am
Robin Baker			14	27	0	3	18	62	20%
Jerry Hidde	3	9	7					19	21% Am

Listed above are those who competed in at least three races.
52 people received points.

Can We Keep Our Canoe Country Waters Clean?

by John G. King and Arnett C. Mace, Jr.

The article is reprinted with permission from The Volunteer, published by the DNR.

In the northeastern corner of Minnesota lies one of the few lakeland wilderness areas in the United States, the Boundary Waters Canoe Area (BWCA).

The high quality waters of the BWCA are the focal point of recreation for over 110,000 visitors annually. In 1971 recreational use of the BWCA was approximately one million visitor days (defined as a 12-hour period per person), which makes it the most heavily used wilderness area in the United States. However, there are numerous BWCA areas that receive little use.

The majority of visitors confine themselves to water-based activities on lakes and rivers that are easily accessible. Consequently, recreational use is concentrated at several entrances to the interior of the BWCA. For example, there are 70 entrance points to the BWCA, but only eight are used by 75% of the recreationists.

Because of increasing use of the BWCA, there is growing concern over visitor impact on aesthetic and wilderness values, campsite deterioration and, particularly, water quality in heavy use areas which may irrevocably damage the uniqueness of this area.

The majority of lakes and rivers in the BWCA are presently of excellent quality with low populations of algae and larger aquatic plants. Because of small inputs from man's activities, nutrients required for plant growth are added to the lakes. Enrichment of the lakes, and subsequent increases in algae growth, would seriously detract from their natural beauty and wilderness value. For this reason, we must be concerned over user inputs to lake and river systems in the BWCA.

Recreationists in the BWCA continually add to the lake's natural chemical budget through additions of detergents, sanitary wastes, solid wastes and the use of outboard motors. Soil depths in this region of Minnesota are quite shallow; therefore, effluents from man's use of the campsites reach bedrock quickly and flow into lake basins. These effluents, rich in nitrates and phosphates, are one of the major contributors of nutrients.

Outboard motors are restricted to certain routes in the BWCA to promote a "wilderness atmosphere" for canoers in the remaining areas. Outboard motors, which are very inefficient in their combustion of fuel, pump unused fuel into the lakes. The thin films of oil inhibit oxygen from diffusing into the surface waters. This problem is of minor importance, since wind and wave action aid in replenishing oxygen deficits quickly, But, oxygen is depleted from surface waters as oil is oxidized into its basic chemical components, some of which are nutrients.

Deterioration of campsites and their shorelines results from heavy use which compacts the soils and destroys the vegetation. This results in increased rainfall runoff from campsites and erosion of top soil.

Phosphates are released as organic matter decays in the uppermost layers of the soil; however, soil particles have a high affinity for phosphates and readily absorb them. This prevents significant amounts of phosphates from reaching the lakes via drainage.

Erosion of the campsites and shorelines brings phosphates, clinging to soil particles, into the lakes where they are eventually freed for plant use. Erosion also carries in organic material, high in nitrogen and phosphorous compounds, which are broken down into usable forms in an aquatic environment. Additionally, erosional processes contribute minute soil and organic particles which go into suspension and reduce water clarity.

Solid wastes left by campers have also been a serious problem in the BWCA. Recent restrictions, excluding nonburnable beverage and food containers from the area, will reduce this problem considerably.

In the summer of 1970, in an attempt to evaluate user impact, water samples were collected and analyzed from two areas in the BWCA: the Moose Lake chain of lakes, and the Isabella Lake and River system.

The Moose Lake chain, composed of Moose, New Found, Sucker, and Birch Lakes, is located 20 miles northeast of Ely. This lake chain receives very heavy use during summer months, with many campsites occupied continuously during the summer. Consequently, they are in advance stages of deterioration.

Lake Isabella and the Isabella River, located 30 miles southeast of Ely, receive minimal pressure. The Isabella River is off-limits to motor boats and receives only light use from canoers.

To evaluate user inputs at campsites, samples were collected near the campsites and along unused shorelines. Since 1968, the College of Forestry, University of Minnesota, in cooperation with North Central Forest Experiment Station, has conducted campsite deterioration studies in the BWCA on 33 campsites.

The results indicate that lake waters in the BWCA are of exceptional quality when compared to lakes in other areas of Minnesota and the nation. They are very low in both nitrate and phosphate concentrations and consequently, algae populations are small. However, this study also indicates that recreational use of the campsites is contributing noticeable quantities of coliform bacteria and phosphates in the vicinity of the campsites.

Fecal coliform bacteria *(Escherichia coli)* inhabits the intestinal tract of all warm blooded animals and at the campsites this bacteria is present in the effluents from man. Some natural occurring coliform bacteria are also found on vegetation and in the soil. Although this bacteria is not harmful to humans, it indicates that fecal matter or effluent from fecal material is reaching the lakes. There is the possibility that harmful disease organisms carried by man may be present.

Samples of lake water collected at the campsites had an average coliform bacteria population of 5.1 per 100 milliliters of water, while samples taken along unused shores average only 1.8 coliform bacteria per 100 ml.

This difference was highly significant! It indicates that use of the campsites is adding coliform bacteria to the lakes. The amounts of bacteria reaching the lakes vary with the use of the campsite. Low-use sites had populations close to those along unused shores, while medium and high use sites had considerably larger populations of coliform bacteria.

Phosphates released as organic matter, such as sanitary wastes, decompose and enter the lakes via effluent from the pit toilets. Detergents, motor fuel and erosion add still more phosphates, though this total contribution is of relatively minor importance.

Along natural unused shorelines, phosphate concentrations averaged .04 parts per million (ppm), while at campsites the average was .05 ppm. Although the difference is small, minute changes in nutrient concentrations in lakes extremely low in nutrients can cause increases in algae populations. In both study areas, available phosphate concentrations increased during the summer, with the Isabella Lake and River increasing considerably more than the Moose Lake chain.

In the Moose Lake chain, organically bound nitrogen increased much more over the summer than the Isabella area, indicating an increase in algae growth. As the algae populations increase, available phosphates are utilized, which explains its lower concentrations in the heavier used Moose Lake chain.

Lakes and rivers in the BWCA are still of exceptionally high quality. Continued heavy recreational use, however, will affect their quality. Enrichment of the lakes and increases in algae growth would seriously detract from the wilderness value of this area.

The BWCA Mineral Rights Problem

By Al Buchholz

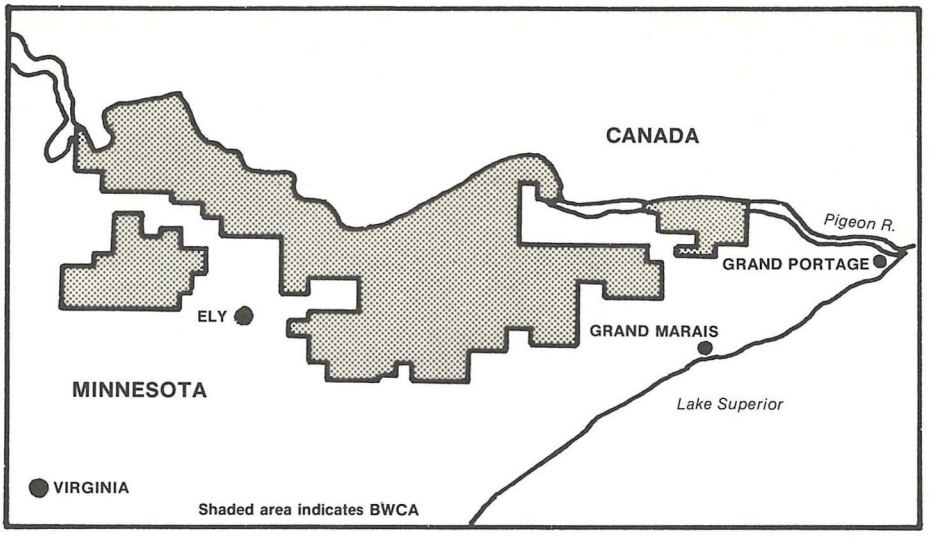
BACKGROUND

The recent decision by Judge Philip Neville to grant a permanent injunction against mineral exploration and extraction in Minnesota's Boundary Waters Canoe Area is an extremely important one in the fight to preserve wilderness. The mineral rights problem which the Judge dealt with has its roots in the practices and laws of the turn of the century. In 1905 the Minnesota legislature passed a bill to allow separation of the rights to subsurface minerals from surface rights in land transactions. In 1914 the Minnesota Supreme Court ruled that several subsurface holdings must be taxed separately from surface real estate. The net effect was to exclude unexplored mineral rights from taxation.

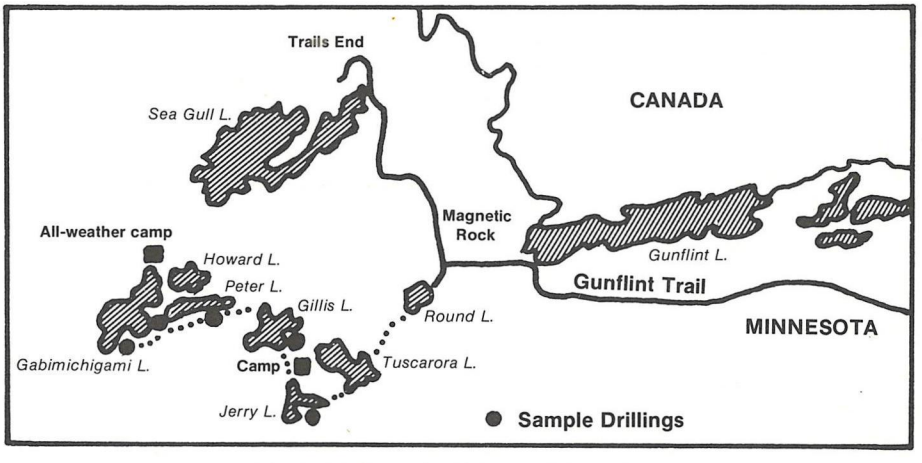
In Northern Minnesota, the landowners at that time were the railroads and logging companies. The area was rich in virgin forests. After logging their land, the owners would often let the surface property revert to the state for failure to pay taxes but retain the subsurface rights. Over the years these subsurface rights were sold and divided so that today much of the subsurface mineral rights of Northern Minnesota are scattered among many owners, often not easily found. In an effort to clear up the confusion, the 1969 Minnesota legislature passed a law requiring subsurface rights to be registered by 1974. Failure to register would permit the state to act as a leasing agent and collect royalties until the owner registers. The purpose was to obtain a listing of owners. Other Minnesota laws provide that mineral rights be subject to the same taxation as real estate taxes. However, this requires a value assessment before taxes can be levied.

What are mineral rights? As the name suggests, these are the rights to ownership of any mineral deposits found in, on, or under a specific parcel of land. These rights are pre-eminent over all other types of real estate laws. They allow the holder to exploit the minerals even if it means moving surface real estate or destroying whatever is on the surface covering the minerals. Two famous examples of this are the cities of Hibbing, Minnesota and Butte, Montana where whole neighborhoods have had to be moved because of valuable mineral deposits underneath.

The BWCA Mineral Rights Suit is an attempt to prevent a New York businessman, George St. Clair, from exercising mineral rights to explore and later extract any minerals he found in 150,000 acres of the BWCA west of the Gunflint Trail. Mr. St. Clair had leased or owned mineral rights in the area of Gabimichigami and other lakes in the heart of one of the main BWCA watersheds. The problem arose



The Boundary Waters Canoe Area



St. Clair's Proposed Test Drilling Sites

because of compromises in the legislative process throughout the history of the BWCA. When national forests were set up, it was common to allow mineral exploration and logging in these areas. These laws were passed before most of the public had an appreciation of wilderness areas and while our country still was under the frontier philosophy of easy exploitation. In addition the 1964 Wilderness Act allowed prospecting and other activities in public lands as long as "such activity is carried on in a manner compatible with the preservation of the wilderness environment". Other important exceptions allow entrance and exit regulations consistent with the use of the land for drilling and mining operations, especially in private holdings within public wilderness areas. Opposed to these exceptions are the rules and regulations set forth by the Department of Agriculture in managing the BWCA as a wilderness. These rules treat the primitive wilderness qualities of the BWCA as most important. Thus, a legal decision was necessary to clear the problem.

When the original Superior Roadless Area was set up and land additions added to it, not enough money was available to purchase all the mineral rights. Also some private land holdings were not obtained. In today's one million acre BWCA (part of the 3 million acre Superior National Forest) the land and mineral ownership is broken down into the following pattern:

Ownership of the BWCA

	Land	Mineral Rights
United States	71.3%	44.0%
Minnesota	26.3	26.3
Counties	1.4	1.4
Privately	1.0	28.3

The 1% of private land ownership is gradually reverting to the Federal government

by condemnation and expiration of lifetime leases.

HISTORY OF THE SUIT

During the summer of 1969, George St. Clair hired geologists to explore the surface of the land under which he held or leased mineral rights. This land was located near Gabimichigami, Gillis, Howard, Peter and French Lakes in the Northeast part of the BWCA, just west of the Gunflint Trail. This area is part of a large arc-shaped rock formation known as the Duluth Gabbro which extends from the Duluth area to the Canadian Border near the end of the Gunflint Trail. The Duluth Gabbro is thought to have low-grade copper-nickel ores in it. Not only does the area St. Clair is interested in contain mineral potential, but it also is in the heart of one of the few remaining virgin (unlogged) forest areas in the BWCA's no-cut zone.

St. Clair's men set up a semi-permanent camp on the shore of Howard Lake, in violation of the Forest Service's two-week camping allowance. When the Forest Service found out about the camp, it ordered St. Clair to remove it from the BWCA. Instead he cached it and in December, 1969, he informed the Forest Service he intended to move drilling equipment into the area to test drill holes up to 600 ft. deep in search of minerals. According to news sources, he did not ask permission to move mechanized equipment into the BWCA as required by the 1965 BWCA regulations. In late 1969 and early 1970 St. Clair's cached camp and supplies were discovered and on Jan. 29, 1970, the Forest Service removed and impounded them. About this time, the Izaak Walton League of America requested a temporary injunction against the State of Minnesota and Federal government to prevent St. Clair from entering. To reach his proposed drilling sites, he would have to cross Federal and State lands as well as water (which is controlled by the State of Minnesota). The Izaak Walton League has long been active in the protection and additions to the BWCA and Superior National Forest since its founding in 1922.

The League filed its suit on January 7, 1970, in the U.S. District Court. Defendants were George St. Clair, Thomas Yawkey, the Secretary of Agriculture and his employees, the Chief of the U.S. Forest Service and the Supervisor of the Superior National Forest. State officials who were also defendants were the Commissioner of Conservation (now Commissioner of Natural Resources) and the Commissioner of Taxation. The nature of the claims were to seek a ruling to determine St. Clair's mineral rights and titles and to interpret the State and Federal land use zoning laws governing the rights to remove minerals and regulating other activities. Pending the decision, an injunction prohibiting St. Clair or his people from entering the BWCA to explore, drill, or remove minerals was sought. The injunction would also prohibit the Federal and State officials from granting permission to St. Clair to enter their lands and waters or to bring in equipment. The actual claims of the League suit contend that St. Clair and his lessors have waited until the public appreciation of wilderness was strong to enter their claims to the mineral rights in a wilderness area to which they have never paid taxes and thus the mineral rights are forfeited. Other claims contend that the exploration for and the removal of minerals will irreparably harm the public's use and enjoyment of the BWCA and that St. Clair's actions are incompatible with the Wilderness Act of 1964, other laws as well, and the long-standing policy of the United States and Minnesota to maintain the BWCA in its primitive state.

Mr. St. Clair's lawyers claimed that Congress did not intend to ban mineral rights in wilderness areas and that even if it had so intended, the attempt would violate his property rights without due process of law. The Federal government defendants claimed that the League suit was premature and should be thrown out because the Forest Service never had a chance to pass on St. Clair's application for core drilling in the BWCA. These defendants asked for the suit to be dismissed.

In February, 1970, the Federal defendants wanted to be removed from the suit because they had impounded St. Clair's equipment and claimed that no further activity was planned by St. Clair until the Judge had ruled on the suit. They also claimed that the Izaak Walton League was not the proper party to seek a permanent injunction and could not dictate how Federal property should be used. In June, 1970, Judge Neville denied the Federal case and said that the Federal government must stay in the suit and can be sued without its consent. An especially important ruling was also that the Izaak Walton League can sue because of its long-standing interest in the Boundary Waters and has "aesthetic, conservational, and recreational interest to protect." Special note was taken of the League's purchase of over 7,000 acres and later transferred to sold them to the Federal government at or less than the purchase price.

In the meantime (early 1970), the State of Minnesota had filed a cross claim in support of the League with the added provision that the area be explored only in a national emergency.

By January, 1971, it was determined that Thomas Yawkey, owner of the Boston Red Sox, had no longer any title or leases to mineral rights and he was dismissed as a defendant provided he agree to abide by the Judge's ultimate decision. At that time, Judge Neville agreed to rule on the question whether St. Clair had forfeited his mineral rights because he had not paid taxes on them and had failed to exercise them before 1969. The Judge also agreed to rule on whether Congress had in effect zoned out mineral exploration and mining when it declared the BWCA a wilderness and, therefore, had invalidated mineral rights in that area.

By June, 1971, the Judge had decided to add as defendants the companies who had leased their mineral rights to St. Clair. And, in August, 1971, the State of Minnesota added a claim that the mineral rights were invalid because they had been obtained fraudulently by others in the 1880's and 1890's. During that time, Northern Minnesota was opened up to homesteaders provided they lived on the land. A Federal investigation in 1894 showed that very few homesteaders lived in that area and that the railroads and logging companies had paid people to claim the land as homesteaders so that it could be logged and the mineral rights separated.

In October, 1971, the final briefs were filed by both sides and on May 15, 1972, Judge Neville ruled that the Federal government, not the State, had the right to challenge whether the mineral rights were obtained fraudulently. He also ruled that the Federal government had allowed the six-year statute of limitations to expire and, therefore, could do nothing about them. He did comment that "exhibits and briefs presented would indicate some substance to the claim had it been timely presented years ago". Final arguments were held in September, 1972, and on January 4, 1973, Judge Neville issued a permanent injunction against prospecting or mining for minerals in the Boundary Waters Canoe Area.

THE JUDGE'S DECISION

The League's suit contended that the BWCA has been effectively zoned as a wilderness and against commercial activity. Judge Neville found that the wilderness purpose is a public one and that the BWCA regulations and prohibitions are reasonable since zoning rarely takes place without someone being deprived of the use of his property. He found that zoning by governmental bodies is well established and cites the examples of city zoning and law cases which upheld this decision.

A second point the Judge ruled on was whether St. Clair had forfeited his mineral rights by not exercising them while the Superior National Forest and the BWCA were being promoted and developed. The fact that he had never paid any Minnesota real estate taxes on them was also a part of the point. The Judge ruled that "there is no merit in the bare bones contention that failure to pay any real estate taxes on mineral rights in some way or other forfeits them. . .". Because the present law allows the separation of mineral rights and no payment of taxes without any assessment, St. Clair and his lessors were ruled not to have abandoned their mineral rights. However, the fact that they did not exercise them while the public areas were being set up and defended, the court decided that there would be no injustice done

if the "defendants are held to be some sort of constructive trustees for the public on the basis of being speculators knowing the trend of the BWCA development history".

Judge Neville also ruled that St. Clair and the mineral rights owners would have to cross State controlled waters and both State and Federal land to gain access to their mineral rights. No easements have been granted and any such access would destroy the wilderness and should not be allowed.

The Judge ruled against the Federal government claims that they had not had a chance to rule on St. Clair's drilling application and, therefore, the League suit was premature. He felt that the Forest Service did permit St. Clair's people to enter the BWCA and granted them an exception from the regulations for establishing a base camp and did not immediately reject St. Clair's drilling application. He ruled that this showed the Forest Service intent and that the League's suit to seek a permanent injunction was valid.

Thus the Judge concluded that Congress has the right to zone and that the decision before him was primarily to answer the question whether Congress intended to zone mineral exploration and removal out of the BWCA wilderness area. In a long conclusion, he decided that Congress did, in fact, intend that the BWCA be managed as a wilderness and that mineral activity and wilderness are incompatible. Further he stated in his decision that, "In this court's opinion, the wilderness objectives override the contrary mineral right of the statute [i.e. the Wilderness Act] (and of necessity the regulations promulgated pursuant thereto)." He also stated that "to create wilderness and in the same breath allow for its destruction could not have been the real congressional intent. . ." He also held that mere prospecting and drilling is an encroachment on the wilderness. The Judge's final comments dealt with the State of Minnesota's request that the injunction be granted "except as related to a national emergency." Judge Neville commented that these terms are so broad that a national emergency could be a declaration of war, a civil war, or a shortage of metals requiring imports. He felt that this national emergency clause should not be allowed until the Congress has defined what it would mean.

THE INJUNCTION

What did the Judge grant? First of all, he issued an order for a permanent injunction barring St. Clair, his lessors, and their people "from attempting directly or indirectly mineral exploration or in any other way the exercise of mineral rights in or under land situated within. . .the BWCA in Minnesota." The permanent injunction also prohibited the Secretary of Agriculture, the Chief of the Forest Service, the Supervisor of the Superior National Forest, the Commissioner of Conservation or the Commissioner of Taxation from permitting any of the others from trying to exercise mineral rights in the BWCA. This order also applies to any successors, agents, etc. of the defendants.

WHAT NEXT?

While a major battle appears to have been won, the total war is still not over. At press time, word was that at least some of the defendants had taken the initial steps to appeal Judge Neville's decision. I think that this lawsuit is a good example of how lengthy and complicated legal proceedings appear to the layman but how necessary they often are to ensure that laws and regulations be applied where intended.

What can we do? First of all, a decision does not mean that the costs of legal action are over. In spite of the lawyers and others who donated all or most of their time for this case, the expenses still total thousands of dollars. If an appeal is sought, the costs will continue to escalate. So *your* help is still needed. Even one dollar helps! If you use the BWCA or want to ensure that it will still be there for the future, how about sending a contribution to the BWCA Defense Fund c/o The Minnesota Canoe Association, P.O. Box 14177, University Station, Minneapolis, Minn. 55414. The old saw that the price of eternal wilderness is eternal vigilance still applies.

★★★★★★★

Whitewater Cruising — 1973

A repertoire of fine rivers and able cruise leaders for the Spring 1973 whitewater season has been established. The rivers have been carefully selected to take best advantage of the spring runoff. These rivers are expected to be grade III at the selected dates but, like long range weather forecasting, we can't be sure.

All participants must be good swimmers and wear life jackets and protective headgear. A wet suit is necessary until mid-May. Experienced paddlers in open canoes are welcome, but additional floatation, such as a large inner tube stuffed under the thwarts, is required. Decked boats must have adequate floatation and grab loops.

Paddlers are expected to call or write their respective cruise leader during the week prior to the cruise. Meet at the rendezvous point at the scheduling time. Membership in the MCA is not required.

Summer and Fall cruises will be planned as interest and water levels dictate. Some potential cruises are:

- North Shore (Brule, Temperance, Pigeon, Baptism, Cloquet, St. Louis)
- Land of the midnite sun and hockey pucks (Vermillion, Sturgeon)
- Midsummer nite's werewolf special (midnite, full moon run of Hell's Gate)
- Fall color (Wolf & Pestigo)

April-May Whitewater Cruise Schedule

DATE	RIVER	RENDEZVOUS POINT	TIME	LEADER	PHONE
April 8	Sand	Picnic area in Jordan, Minn. (Highway 21 bridge)	Noon	Andy Westerhaus	890-1161
April 14 15	Bois Brule Totogatic*	Campground in Brule, Wis.	11:00 AM	John Krack	566-1984 (home) 633-6170 x 5178 (work)
April 21 22	S. F. Flambeau Jump*	Landing, Hwy. M North of Hawkins	10:00 AM	Tom Johns	560-1058
April 28 29	Kettle River Race				
May 5	Snake	County Campground 3 mi. north of Woodland	11:00 AM	Steve Parsons	521-4789 (work)
May 12	Kettle	Head of the rapids in Banning State Park	10:00 AM	Joerg Steinback	636-0114
May 19 20	Apple River Race				
May 26	E. B. Ontonagon*	Highway 45 bridge near Mass, Mich.	11:00 AM	Andy Westerhaus	890-1161
27	Ford*				
28	Menomonee*, Pine*, or Popple*				

*Denotes Exploratory Cruise

MCA OFFICERS

President	Larry Johns 2936 N. Simpson St. Paul 55113	633-6734
Vice President	Kim Williams 2447 Stewart St. Paul 55116	698-5702
Treasurer	Nap Bruneau 320 E. Roselawn St. Paul 55117	774-4822
Secretary	Linda Jones 179 N. McKnight Rd. Apt. 219 St. Paul 55119	735-2595
Director (3 yr.)	John Arver 2467 Cohansey St. Paul 55113	484-5484
Director (3 yr.)	Bob O'Hara 10717A 10th Ave. No. (B-3) Minneapolis 55427	545-0748
Director (3 yr.)	Joe Conrad 1431 W. Englewood Ave. St. Paul 55104	645-8365
Director (1 yr.)	Pam Foster 6229 Pillsbury Ave. So. Minneapolis 55423	861-6613
Director (1 yr.)	Ham Kurtz 912 9th Ave. So. Hopkins 55343	935-3134

4 Seasons Equipment

EVERYTHING FOR THE OUTDOORS ENTHUSIAST

DOWN CLOTHING up to 20% off

BACK PACKS SLEEPING BAGS TENTS

SPECIALS (WHILE PRESENT STOCK LASTS)

OPTIMUS 111B - THE WINTER STOVE	$ 21.00
SVEA 123 (NAKED)	10.00
SIGG COOK KIT	10.50
COMBINATION - SIGG & SVEA	20.00

COMPLETE SKI TOURING GEAR

All ski-touring gear up to 1/3 off

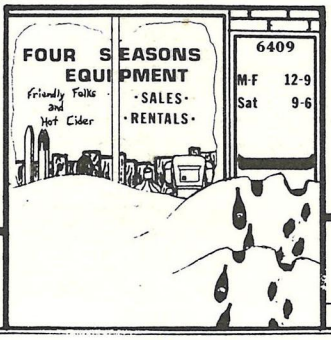
Pick one of our packages or Choose your own

In shop binding mounting

Bottom preparation

Free customer waxing bench

Low rental rates



SNOWSHOES

VERMONT TUBBS LINE NOW IN

LOW PRICES-RENT OR BUY

ALASKA 10x56	$ 29.50
MICHIGAN 13x48	28.00
CROSS COUNTRY	28.50

LEATHER OR NEOPRENE BINDINGS

WINTER FUN STARTS HERE

6409 Lyndale Ave. So.

STOP IN TO VISIT - AND WARM UP WITH HOT CIDER

Phone 861-3838

SAWYER CANOES

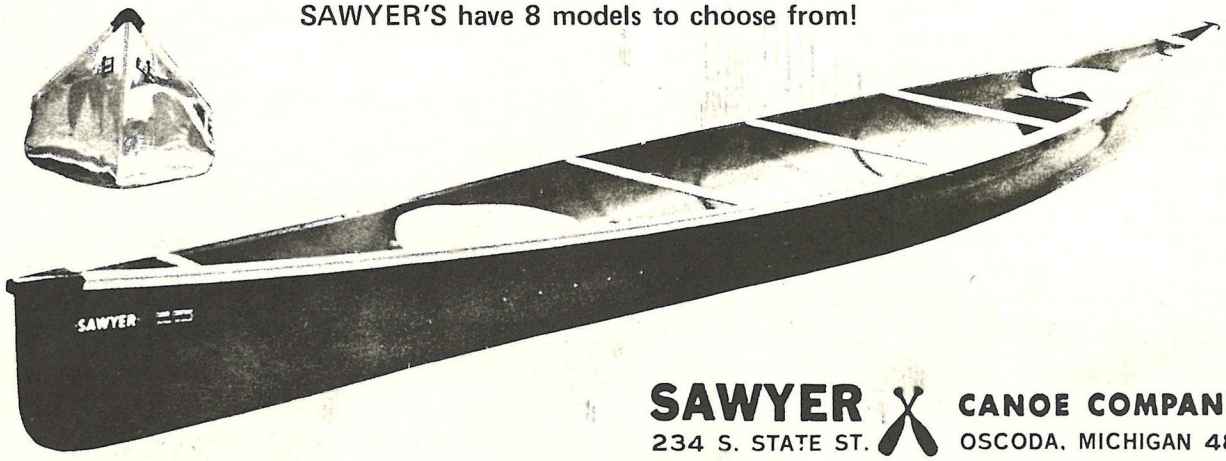
HAND-CRAFTED FIBERGLASS
LIGHTER THAN ALUMINUM

Preferred by Canoeists Since 1957

It costs so little to have the finest

This is the Sawyer CHAMPION, winner of the 1972 U.S.C.A. Sr. Men's National Championship

SAWYER'S have 8 models to choose from!



SAWYER CANOE COMPANY
234 S. STATE ST. OSCODA, MICHIGAN 48750

MINNESOTA CANOE ASSOCIATION. INC.

P.O. Box 14177, University Station, Mpls., Mn. 55414

Address correction requested:

The Minnesota Canoe Association, Inc. is a non-profit organization dedicated to promote all aspects of canoeing.

Bulk Rate
U.S. POSTAGE
PAID
Permit No. 615
Minneapolis, Minn.