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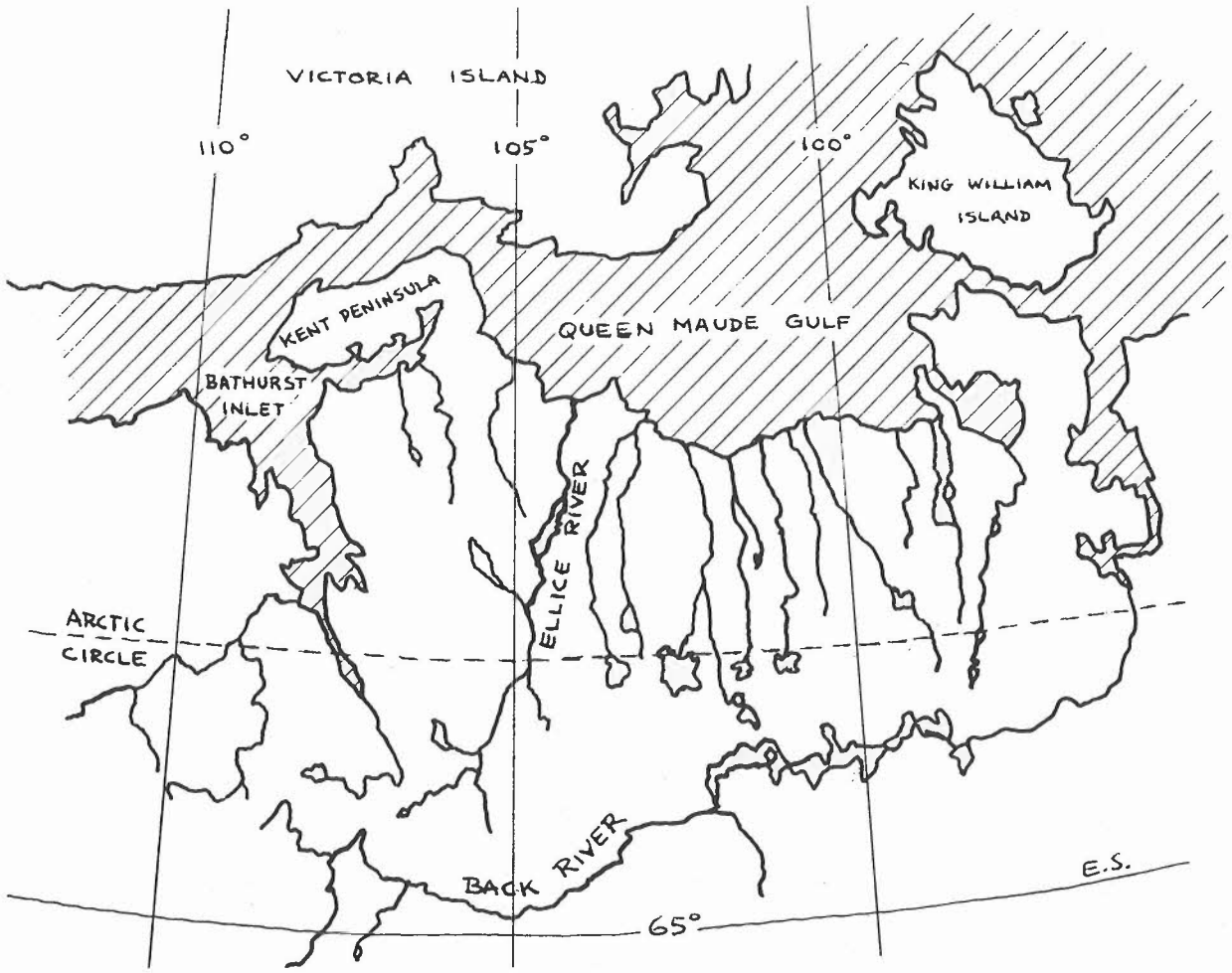


EXPLORING THE ELLICE RIVER

Erwin Streisinger

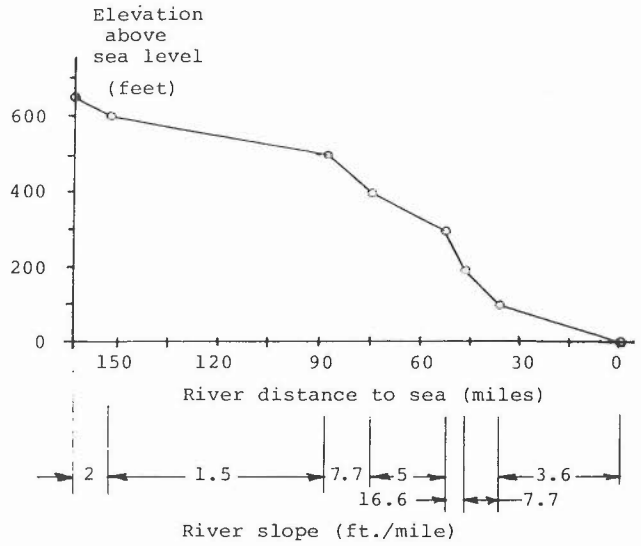
An Arctic journey is a busy experience. It takes up all your thought and all your energies to the extent that there is little time to think about anything not involved in the here and now. And throughout the trip, three feelings prevail: a sense of risk, a sense of fatigue, and a sense of exuberant joy.

On such journeys we come in by plane, and although it arrives and leaves with a blustery roar, the stillness of the land is disturbed for only a few minutes. The plane's brief presence leaves no lasting mark on the endless and timeless expanse of boulders, sky, and water. What is permanent there is the faint whistle of the wind. Our own presence is like that of a few grains of sand on dusty ground. We arrive and move about almost stealthily. The landscape is vast, and indifferent to our presence. It compels us to feel our insignificance.

The Ellice River is part of the Arctic watershed. It is one of the several dozen rivers that flow almost directly northward and empty into the numerous gulfs and inlets of the sea. I chose this river for two reasons: first, it is located in the north-central span of the Barrens, an area whose fauna and flora I was anxious to explore, and, second, it seemed from the maps to carry enough water to be navigable. The Explorers Club files show that in 1972 a group of four canoed down

that river, led by John W. Lentz. There is no record of any other exploratory journey. One could safely say that the river and the areas around it were – and are – virtually unexplored.

One of the most important exercises in planning an Arctic river trip (or any extended river trip, for that matter) is the preparation of what I call a river profile diagram. This is a graph where the river distance in miles is plotted along the horizontal co-ordinate, and the elevation in feet is plotted along the vertical. Although the 100-foot contours give a coarse profile, it can be valuable in predicting the conditions to be expected. The Ellice River's profile showed that for the first 75 miles the land drop was relatively gentle and gradual. From there, however, the elevation intersect lines appeared at shorter and shorter intervals. The graph began showing a 7.7-foot drop per mile, which increased to 16.6 over a stretch of five miles. Then, toward the ocean shore, the slope levelled off gradually, bringing the river to a dignified slow final run.



River profile; Ellice River

In reality this interpretation proved to be oversimplified. The drops occur in ledges at irregular intervals. Even along the first 75 miles of gentle slope, there were 14 major and innumerable smaller rapids, accounting for a total drop of about 150 feet. I do not recommend the Ellice River for casual boating.

The main purpose of my visits to the Arctic is field observation and wildlife film documentation. Both these goals can be best achieved by keeping all arrangements lean and simple. Four persons, two folding kayaks, one canoe, full camping equipment, food (20 days' supply), and cameras weighed a total of approximately 1,200 pounds, proof that our equipment was trimmed to the essentials. Yet, as on our previous trips, we lived and ate (and even drank) in luxury.

On 17 July 1978, a large De Havilland single-engine turbo-prop plane carried us in from Yellowknife, with the canoe roped to one pontoon and all other gear inside. We started slightly south of the Arctic circle, at an elevation of about 650 feet above sea level, with 165 miles of river ahead of us. We planned two or three layover days when we would set up camp along the river at points of special ecological interest and spend the day exploring and filming in the inland areas away from the river. Even so, we needn't cover more than an average of 14 miles a day, a distance that involved no great strain.

After the plane left us, the boats were assembled and the gear sorted out. By then it was early evening, so the commissary was put into action, and our first meal was cooked. I proposed the traditional first evening's toast of my trips: to the river, that it may allow us safe passage.

The following day, our first working day, was cool and very windy. As it turned out, so were most of the days that followed. We had on our parkas and wool caps, and our life jackets served double duty, in their second role adding an extra layer of clothing which helped to conserve body heat.

Although the river current was fast, our progress was not. Hardly a mile or two would pass without our hearing the familiar growl of the rapids. Each of these had to be scouted from the shore to determine whether, and how, we could get through.

There was some ice and snow along the shores. When we stopped for lunch at one spot, alongside us was a sizable block of ice, about ten feet long and three feet thick. It was melting: water droplets were running down its edges. During a brief after-lunch walk into the grassy tundra, we observed a few parasitic jaegers circling above us, graceful with their slender wings and long, pointy tail feathers. These and some Arctic terns were in the air, while on the ground, hopping among the low plants were some Lapland longspurs and snow buntings hunting for seeds. There were caribou and wolf tracks along the shore, and the ever-present excrement heaps of the Canada geese. As we paddled, then and some days later, red-throated loons came flying by low over the water.

The temperature was 41 degrees, going to 40 in the evening. Throughout the trip, with the exception of three sunny days, the temperature did not vary by more than two degrees. The river water was within a degree of the air temperature. The sun appeared on the fifth day of the trip. At that evening's campsite a lot of damp clothing and equipment was set out to dry. During the preceding days we encountered much strong headwind, which, of course, slowed our progress.

This was the spring flood season. Although just past the middle of July, the river still carried the snow runoff that had melted perhaps two or three weeks before. The plants along the shores and inland were in spring bloom. The river, whose normal channel as judged by the topographic maps, was about 400 to 500 feet wide, extended itself in many places to a quarter mile or more. Often the bends and turns did not match what the map showed, and we paddled over sandbars with only a foot or two of water depth. But in another few weeks most of the sandbars would revert to dry land, and the river would flow in its deep central channel.

So far as our travel was concerned, the high water level was a help rather than a hindrance, as it allowed easier passage through the rock-strewn sections. However, there were some rapids that the open-decked canoe could not handle. Loaded with supplies, it would have been easily

swamped by the waves. So our two canoeing members, Don Scott, who has had several years of Arctic river experience, and Lisa Wurm, whose first Arctic trip this was, portaged more often than the two of us in kayaks.

Anna Gerenday, who had participated in the Baffin Island fiord exploration trip the year before, and I brought single-seater folding kayaks. Their long, closed decks fore and aft shed the waves well. But on portages, which averaged two a day and required three round trips, the kayaks had a disadvantage. All the individual packages, small enough to fit into the bow and stern openings, had to be retrieved, tied on to backpack frames, transported, and repacked into the hull piece by piece.

At the foot of any rapids, a few seconds after casting a fishing line into the churning waters, a fair to large-size grayling or brown trout would strike the line, and would then fight desperately to get off it. Neither Don nor I, who comprised the active fisherman (fisherperson?) part of our group, are interested in fishing as a sport. Our motivation was solely to introduce some variety into our daily dinner fare of freeze-dried main courses. Although these dishes bear a variety of names – "Turkey Supreme," "Beef Stroganoff," "Chicken Pilaf," and the like – one soon comes to the grim realization that except for a fleeting tinge of flavor difference, they all taste alike. One can add spark to these courses by the addition of various gravy mixes and condiments. On one previous trip we added tabasco sauce with a heavy hand. On other occasions, green mustard powder and even lemon powder were thrown in. The fresh grayling and trout were therefore most welcome.

The fish have the waters pretty much to themselves. Except for the loons and the terns who take some of the small fish, and for the gulls (Iceland, herring, and glaucous gulls), there are no predators. The big fish, of course, eat the little fish, but apparently the population is thriving. Among the larger mammals some wolverines might take a fish occasionally, but this area is too far north for the grizzly, who is an avid fish eater, and too far inland for the polar bear. Wolves or Arctic fox don't seem to bother with fish, as they get plenty of food on land. The birds of prey here do not include the bald eagle, whose regular diet is fish; its habitat ends far south of here at the treeline.

The ground squirrel, or sik-sik as the Inuit call it, exists in great abundance all over the tundra. Although all the predators, furred and feathered, include the ground squirrel in their diet, these little animals hold their own and find ample food and shelter among the rocks. We found them fascinating, sitting on their hind legs chewing on a piece of plant stalk or flower. At their every appearance Don would reach for his camera, a weakness that cost him untold rolls of film.

Drawings by Ria Harting

Our daily progress was slower than I anticipated. The portages stirred us to much groaning and swearing, while on the river there were headwinds that compelled us to lean harder into our paddles. On most days we moved along until about six in the afternoon, and then started looking for a campsite. We chose sites as far as possible so that our tents would be in a relatively wind-sheltered spot. Protection from the wind was also important for cooking, as even sheltered in the lee of a tent it took our small gasoline stove a long time to heat up the meals. With the stove in a windy spot, even though equipped with wind baffles, cooking took much longer, and that meant that our closely-calculated fuel supply might not last the duration of the trip. In some places we gathered dry twigs and branches of the low alder shrubs that grew to a height of a foot. Within a half hour we collected enough to cook a full dinner and breakfast.

We also chose campsites close to shore to avoid carrying equipment any further than necessary. In a few places we camped higher in the hills, a few hundred yards from shore. In one such spot where there was an exceptionally beautiful view, we crossed over a small snow field to get to our campsite. The snow surface was crusted to ice, but even though it had been there since last winter, it was clean and white. Along its perimeter, where it was melting fast, the low tundra vegetation was still dormant in its winter sleep. Ten feet away from the snow's edge, where the snow had cleared away perhaps a week before, the heath and some other plants were showing signs of awakening. Yet a few steps away the heath was in full bloom. The transition from the end of winter to early summer could thus be seen along a band of earth no more than 20 feet wide.

Anna, who did all of our plant identification, found that there were several distinct plant habitat groups. Close to shore, in areas reached by spray near the foot of rapids, and where strewn boulders offered protection from the wind, plant life was most abundant. In these areas, and there were very few of them along the river, some plants grew to a height of a foot or two: gigantic for tundra vegetation. The dwarf birch, the willow, and the alder formed thick clusters through which passage would have been difficult. Some flowering plants, too, such as the cinquefoil and daisies, grew tall. Along some of the rocky, shady hillsides at the foot of boulders where moisture tended to remain, we found a species of fern.

Moving inland, a rich plant life was supported around the marshes and bogs. Here a variety of grasses and sedges formed a thick ground cover. Flowering plants typically included the bog rosemary and ranunculus. The rocky and gravelly ground on the higher tundra plateau was in some spots thickly covered by the flowering mountain avens, the white heath, buttercup, Arctic azalea, Labrador tea and – in isolated patches – the lovely pink rhododendron. The sandy fell fields provided a good plant variety as well. Here, too, we found the mountain avens, the Arctic azalea with its leaves and flowers close to the ground, and several species of lousewort, saxifrages, and the bright yellow flowering arnica. In a few locations we saw a species of coltsfoot and the Indian paintbrush.

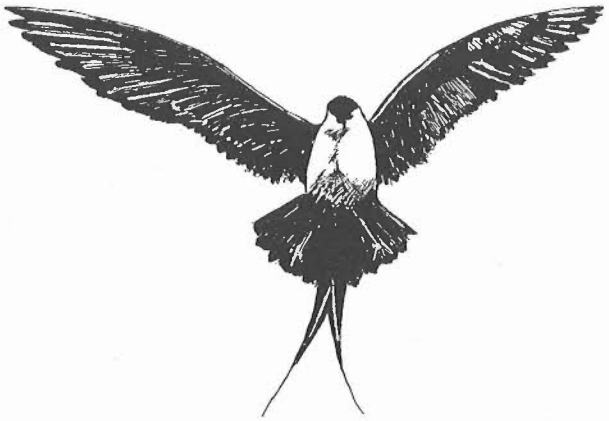
As the expanse of sand increased in some areas such as on the ridges of the eskers, those immense, long sand hills formed by the glaciers, the plant population thinned out considerably. Here, on the desert-like slopes there were only a few patches of epilobium and clusters of that most delightful plant the moss campion with its tiny, light-pink flowers.

In the Arctic, just as in other wilderness areas, the early morning hours are when wildlife is most active. There being daylight at all hours in July, it requires a little adjustment to shift one's activity pattern, starting the day even at 2 a.m. and ending at mid-afternoon. We made it a practice to start early to film the wildlife and also to catch the windless hours.

During breakfast, we would often see the magnificent silvery-white arctic wolf strolling along on the opposite river bank. During the summer I have never seen these animals in packs, but only as solitary wanderers or sometimes by twos. They maintain their dignity and aloofness when coming across strange creatures such as ourselves and things like our boats, the likes of which they had not encountered before. They slow down or stop, look us over quite thoroughly and then walk on.

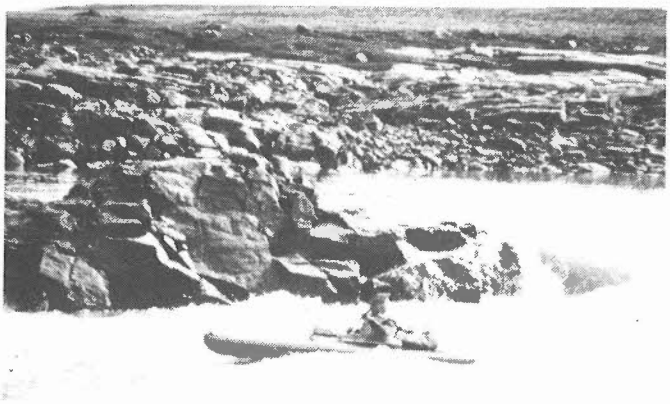
Our morning sightings included the animal that most typifies the Arctic: the Barrenlands caribou. They appeared singly or in small herds, but not in the vast numbers that

characterize their spring and fall migrations. We saw some large bulls running along fast in that characteristic gait that keeps body and head moving in a straight line as though drawn by a string, a gait that the caribou can keep up for an hour if need be. One small herd of females and young came swimming across the river to our side, but seeing us they altered their course midstream to land at a safe distance, and on getting to shore they ran off at a fast pace. They did not care to investigate us more closely.



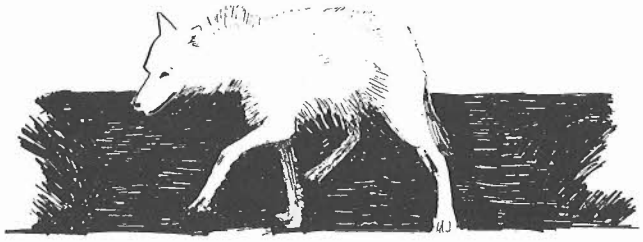
On one other occasion, not far from our campsite, a female swam to shore followed by two very young calves. As the mother animal emerged, she eyed us anxiously while one of the two young clambered to shore. For some moments that to her might have appeared endless, she waited for her second young, who apparently had some difficulty getting on shore. Then her nerves gave out, and, with one young in tow, she galloped off. A minute later the second young appeared and also ran off, although it apparently was not quite sure of the right direction. It is these lone little ones, of course, for which the Arctic wolves are forever on the lookout.

There was not much change in the character of the terrain as we proceeded north. This was to be expected: our entire journey was to cover no more than two degrees latitude on the earth's surface, a really insignificant distance. Hills were very much in evidence during the first half of our journey, jutting out wildly in some spots a few hundred feet above the surrounding land. These were replaced by much lower hills with gently sloping sides. On many, bare sand predominated, with small patches of vegetation holding on to the loose surface. Most other hills were rocky, with grasses, moss and low vegetation providing the ground cover. Because this was the Barrens there were, of course, no trees to be seen anywhere, except for a few patches of foot-high growths of the three Arctic tree species: birch, willow, and alder.



The rocks themselves were richly covered with a variety of lichens. Most prevalent of these were the black rock tripe, with its edges curling away from the rock; white circular disc-like lichen species; and the glowing orange jewel lichens. Among the rocks, especially in moist areas, were thick growths of caribou lichens whose white twig-like stems reached upward sometimes four or five inches above ground.

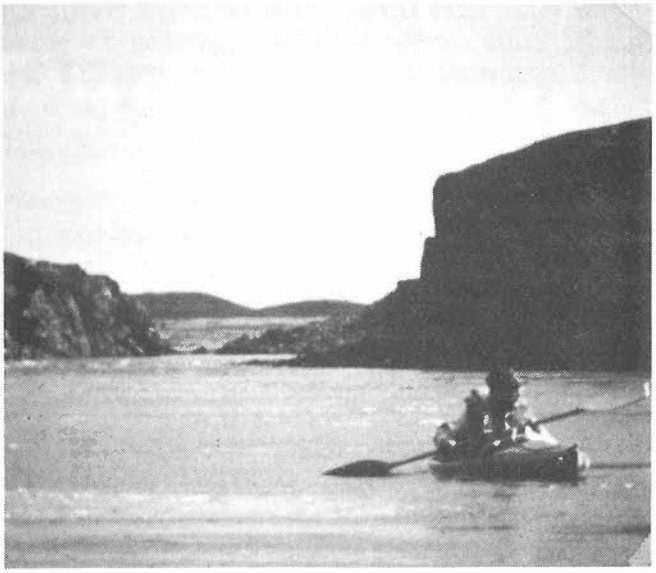
The original expedition plan allowed for at least two layover camps from which we would make excursions into the back country. We would not expect to reach far inland: five or six miles at best. As we reviewed the river distances we covered day by day, it became increasingly clear that we would have to give up hope first for one, and later for the second layover day. The one spare day we still had when we reached just past the halfway point in our journey, we had to keep in reserve against any unforeseen hazards during the remainder of the trip.



Our portages gave us our best chances to observe the land more closely, aside from the brief opportunities at campsites. On the return part of each portage haul, when we were walking without a load, we could pay more attention to the vegetation, the rock formations and the animals in the area. Anna used these portage return trips to do her plant identification and photography.

All along the river the shores were sandy, and a short distance away the ground rose sharply to moderate heights of 10 to 20 feet. On the plateau beyond, the rocky, grassy terrain stretched out in all directions. Sitting in our boats gave us a kind of frog's-eye view of everything around us, as we never knew what was happening beyond the high edge of the dunes. Once or twice, though, we had good luck: one morning a wolf appeared on the high banks just as our boats were passing by close to shore. Its silvery fur was as white as the bleached rocks that jutted out from the sand. As seems to be the wolf's custom, he observed us, one by one, and then he quietly withdrew, carrying the newly acquired information with him.

A day later it was an Arctic fox that caught our eye, and we his, because he was busy running away along the dune's



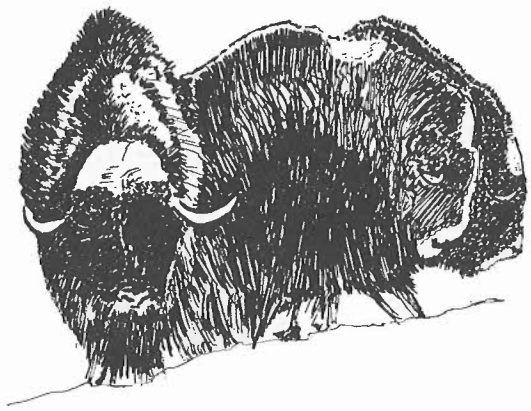
crest. On closer look we saw that he was carrying something. We got out of our boats and followed him. During the winter the Arctic fox turns white and is almost invisible in the bleak, featureless snowfields, but in the summer he is easy to spot in his three-coloured fur. Large blotches of black, reddish, and a bit of grey are spread over his body. This pattern must help him when he moves along between the lichen-covered rocks. Out in the open plain, covered mostly with sparse growths of grass and sedges, he was very visible.

When we clambered up the side of the dune, we saw that we were not the only ones following the fox with his burden, which he dropped to be less hindered in running. It was a freshly killed Canada goose with its head and neck missing. The fox probably ate this as an immediate reward for what must have been a long and tedious approach to the ever-wary goose. But now there were others besides us who had noticed the fox and his prey: two wolves were just closing in on him as we entered the picture. When they noticed us they stopped and moved back a bit. The fox was now at a safe distance and had disappeared out of sight. The wolves stood waiting. After a while one wandered away, leaving the other for lookout over the headless goose lying in the field.

Up to then it was my unrealized desire to find out what Canada goose tastes like. Since no one on my trips carries firearms, this was merely a fantasy. Now, however, there was this goose at our feet. I picked it up and triumphantly announced to my colleagues that the dinner menu that evening would include fried goose. I couldn't have been more amazed at their reaction. That goose, they said, belonged to the fox, and if he couldn't have it, it belonged to the wolves. They were quite adamant, and so I still don't know what Canada goose tastes like.

I like river travel because it is exciting to see new vistas unfold after every turn, and because there is excitement in working your way through the challenges posed by the rapids. Also because – as I have observed on just about every wilderness river I have travelled – all life converges toward the river. Given enough time you see most of the animal species that live in the region.

During the latter part of the journey we observed small groups of musk oxen, those long-haired black beasts with the menacingly forward-curved horns. Anatomically, these odd-



looking animals teeter precariously between the sheep and the bovine group. At the turn of the century they were, in fact, dangerously close to extinction since their underfur is the softest and warmest wool that any animal possesses. They are now protected and their numbers are increasing. Our presence did not disturb the musk oxen. They grazed, moved about, or chased after each other. When we approached them to get closer photographs, they moved back, casting disapproving glances in our direction, and kept at a safe distance.

The caribou population seemed to have thinned out considerably. We saw a few bull animals and tracks in many places where we got on shore, but these were not recent. The caribou apparently were on their way to the south. We were now within sixty miles of the Arctic coastline, with the river still 250 feet above sea level. Here the downward slope became its steepest. Rapids followed rapids in quick succession, and even though some were navigable, there were many more that demanded that we portage.

We had ample opportunity in this last stage of our journey to observe animal species, here mostly birds. The snow buntings were very much in evidence, and so were the Lapland longspurs. Along the shores we saw a few semi-palmated plovers and sandpipers. There were larger birds, including herring gulls (they seem to be able to live anywhere and everywhere) and the white Iceland gulls. The birds of prey were represented by several species: we saw

rough-legged hawks wherever there were steep cliffs and precipices along the shores, and a few golden eagles soaring along in search of small animals down below. Again we saw the parasitic jaegers.

And last but not least, there were my birds of good omen, the snowy owls. These large, quiet birds are rather shy and will not be approached too closely. We saw three during our voyage. The first flew by us as we were paddling close to shore. Don, whose boat was ahead, observed what he at first glance perceived as a gull without a head. We were able to photograph and film two of the owls. One sat on top of a hill crest and flew away when we were still at a distance of about 300 feet. The other, sitting on a rock in the middle of a snow patch, let us approach to almost 50 feet before it, too, headed away on noiseless wings.

We reached the coastal plains on the evening before the last day's paddling. A long series of rapids was indicated on the map. We knew that these rapids were the last major ones, and that thought eased the loads as we portaged throughout the morning. The landscape was flat and open. Along both shores the banks rose to a height of 15 feet; beyond that all of the inland area was completely flat. The weather on this last day was beautiful: sunny and hardly a trace of wind. Just two days earlier the strong wind had compelled us to get to shore before five in the afternoon, cutting our day short because we could make no headway. We now decided to move along until we reached our destination that evening. For all we knew, the next day could again be rainy and stormy, and with no protection from the winds that could mean rough going. It was a long day's paddling. The river was wide, and because the land had flattened out into the coastal plain, there was almost no current. That evening we met a school of char (only the tips of their dorsal fins were visible) swimming upstream.

There were no obstacles of any kind between here and the open sea, and it was therefore possible for boats to come into the river from that direction. It was not surprising, then, that we noticed some man-made objects, our first signs of human presence. At one point on the shore we found a torn piece of plastic sheeting, a rusty piece of chain, and some empty rifle shells. Further on, there stood a small prefabricated sheet-metal cabin, like a small tool shed. This looked like something the Government might have set up to house remote-transmitting weather instruments.

At the beginning of our journey we had designated a pick-up point that our pilot could recognize easily. A few miles inland from the seacoast was an oval-shaped island in the middle of the river, readily visible even from high altitudes, and we were to be on the east bank of the river in that area.

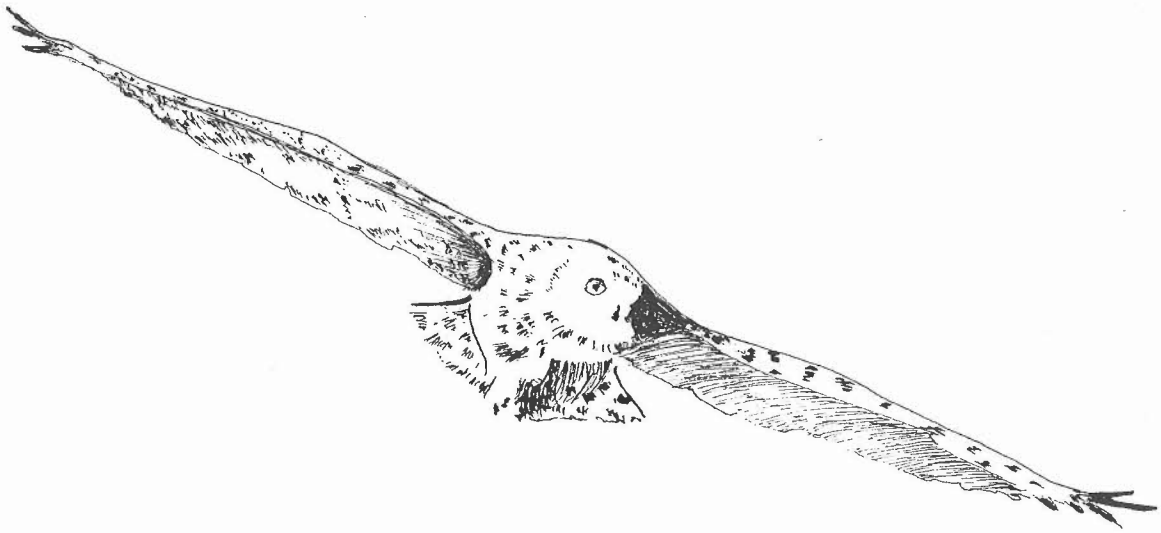
Close to ten on the evening of 2 August, we put to shore. We had spent the morning portaging and the afternoon and evening covering the remaining 20 miles of river to reach our goal. We set up the tents in a small ravine across from the midpoint of the island. After an almost breezeless day, the wind sprang up soon after we unloaded our boats. In spite of this, the last evening was luxurious: not because dinner was different, but because we knew there were to be no more portages on this trip.

This evening, as on the first, our toast was to the river – for seeing us through safely. We then allowed ourselves more toasts until we finished the contents of the medicinal jug.

In the morning we packed our equipment and spread out the two tent sheets, one orange, the other blue, to act as markers for the pilot. Northward there was a thick haze: four miles from us was the seacoast. We took some photographs of our group with the Explorers Club flag unfurled here at our destination. At the edge of the plateau, now seen from above, a small sik-sik came out of its burrow and sat down among the flowers, observing us. This took care of a full roll of Don's film.

Our pilot arrived at two minutes past two that afternoon; by 20 minutes past two we were airborne, and by eight that evening (after refuelling at Bathurst Inlet) we were back in Yellowknife.

Erwin Streisinger has a lifelong interest in wildlife and natural history, and has spent many summers travelling along the rivers of the Canadian Arctic, filming and observing the area's wildlife. This article was adapted from his report in the Explorers Journal, June 1980.



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Nastawgan is an Anishinabi word meaning 'the way or route'

The WILDERNESS CANOE ASSOCIATION is a non-profit organization made up of individuals interested in wilderness travel, mainly by canoe and kayak, but also including backpacking and winter trips on both skis and snowshoes. The club publishes a quarterly journal, *Nastawgan*, to facilitate the exchange of information and ideas of interest to wilderness travellers, organizes an extensive program of trips for members, runs a few basic workshops, and is involved in environmental issues relevant to wilderness canoeing.

EDITORIAL

OK, all right, fine, you win, I give up . . . . No more struggles, the fight is over! I lie down and humbly place your conquering foot on my neck.

Most of you keep insisting on the use of that archaic, illogical Imperial system of measurements (based in part on long-dead Royal thumbs and arms and such . . .) instead of this simple, beautiful and oh-so-easy-to-use metric system employed by most of the world's more enlightened nations (including, officially at least, Canada!) to describe the physical world. Believe me, the past five years I've repeatedly tried to let you see the light and get you to submit your articles nicely written up in metric, saving me and my fellow editors the considerable headache and heartache of converting those weird measurements into something far better, based on that marvellous decimal system. And a few of you actually tried to do just that, thank you, oh thank you . . . ! But the majority of the articles continue using Imperial and it looks like I'm not going to change the course of history on this one.

Well, so be it. Imperial you want, Imperial you get. From now on I won't complain about or even try to convert (at least in most cases) your inches and miles and pounds and other obnoxious stuff, but stay with what comes in. However, anyone submitting material in metric will be enshrined instantly in my pantheon of Particularly Enlightened Submittors, and incense will be burned to honor your beloved and understanding soul.

Main thing is, though, keep sending me your articles, especially those of short and medium length. Send them any way you want to (ask for Contributor's Guidelines if you need some tips) and our love and gratitude will be overflowing. Thanks.

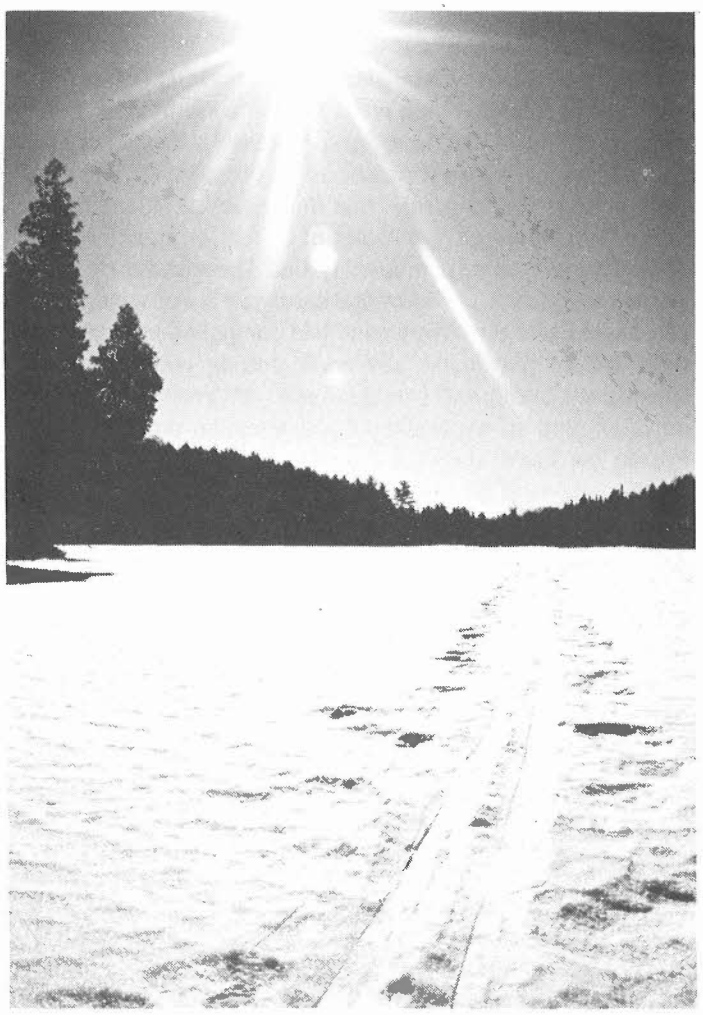
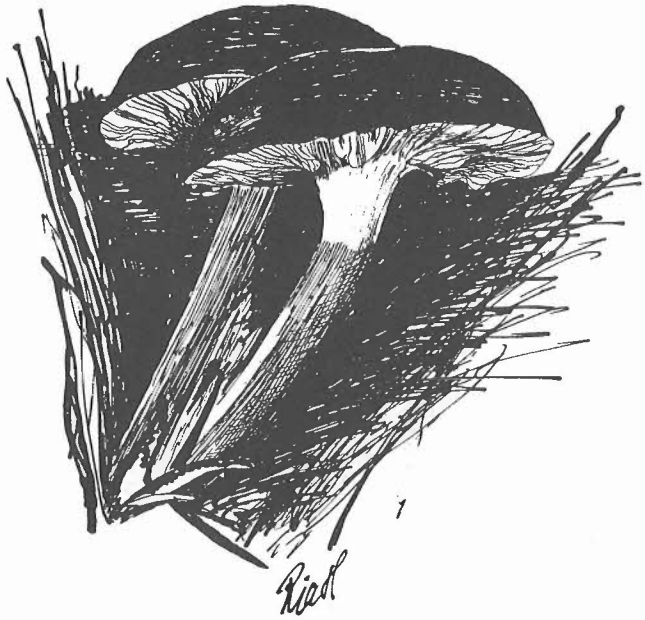


Photo: Jay Neilson



NEWS BRIEFS

NASTAWGAN MATERIAL AND DEADLINE Articles, trip reports, book reviews, photographs, sketches, technical tips, or anything else that you think might be of interest to other readers, are needed for future issues. Submit your contributions preferably on floppy computer disks or in typewritten form; contact the editor for more information. Contributor's Guidelines are available upon request; please follow these guidelines as much as possible to increase the efficiency of the production of our journal. The deadline dates for the next two issues are:

issue:		*deadline date*:
Spring 1992		26 Jan. 1992
Summer 1992		3 May 1992

WCA MEMBERSHIP LISTS are available to any members who wish one for personal, non-commercial use. Send five dollars in bills (no cheques, please!) to Cash Belden at the WCA postal address (see WCA Contacts on the back page).

SYMPOSIUM The seventh annual Canoeing and Wilderness Symposium will be held in Toronto on 24 and 25 January 1992. It will focus on Northern Quebec and the format for Friday evening and all day Saturday will be similar to last year's. The location will also be the same, Monarch Park Collegiate. If you have not received a registration form in a separate mailing, please contact George Luste at (416) 534-9313. Register as soon as possible because space is limited.

ANNUAL GENERAL MEETING 1992 Information on next year's AGM is presented in the enclosed sheet.

Photo: Jay Neilson

OUTDOOR CANADA SHOW BOOTH The WCA will have a booth at the Outdoor Canada Show (previously called Toronto Sportsmen's Show) which will take place from 13 to 22 March 1992. We are of course looking for members to staff the booth. Anybody with the right spirit and some time to spare, contact Ken Coburn at (416) 767-5845 after 6 January 1992. Please call before 9:00 p.m. The early callers get the best spots. PARTICIPATE!

CANOE EXPO '92 On 4 and 5 April 1992, the Etobicoke Olympium in the Toronto suburb of Etobicoke will house the first Canadian Canoe Expo, organized by Canoe Ontario for the benefit of paddling enthusiasts of all ages, experience, and disciplines. More information on this exciting CANOE EXPO '92 will be presented in the coming issue of *Nastawgan*.

BOARD ACTIVITIES

(This column is intended to keep WCA members up to date on the activities and decisions of their Board of Directors *occurring prior to the Nastawgan deadline.*)

Since the last report, the Board met on 14 September and 8 November. Our financial position remains sound and current membership stands at 604 (440 adults and 164 families).

The Fall Meeting was a great success with about 100 people attending. The sessions and workshops were well received and a modest profit was made on the food. A "thank you" donation of $100 was made to the Friends of Presqu'ile.

Plans are well in hand for the 1992 AGM which will be held on Saturday, 22 February at the Mansfield Outdoor Centre (see flyer). Both the opportunities for winter outings and the evening speaker program should prove interesting. Costs will be relatively modest.

Ken Coburn has taken over the reins of the Sportsmen's Show (now the Outdoor Canada Show) Committee. They will be making some much-needed renovations to the WCA booth and are still looking for photos suitable to enlarge as part of a permanent backdrop.

The Board accepted with regret the resignation of Stephen Crouch as Chairman of the Conservation Committee. John Hackert is going to take over and he and Richard Culpeper are undertaking an ambitious project whose goal is to try to save as many as possible of the approximately 500 small rivers scheduled for "small hydro projects" (i.e. dams!). They would welcome member support.

Members are reminded that those willing to volunteer their candidacy for the Board of Directors can still do so by contacting a member of the present Board or at the AGM.

Hope to see you all at the AGM.

Bill King

MAKOBE RIVER

Bill King

As I browse through Hap Wilson's "Temagami Canoe Routes" (something which I do regularly and with great pleasure), I have often been taken by his description of the Makobe – Montreal River Loop. It has always seemed a trip which would have something of all the best that the Temagami district has to offer: large and smaller lakes, rugged shield terrain, scenic waterfalls, and a measure of runable rapids. For me the most inconvenient feature has always been the recommended 10-day length of the trip, an awkward amount of time-off to arrange, particularly in the early season when the water levels are best.

Joan and I managed to solve this problem on our recent trip by making arrangements with one of the locals in Elk Lake to shuttle our car down to Mowat Landing and back to Elk Lake, thereby eliminating what I would judge to be the least interesting side of the triangular loop, the Montreal River section. By so doing we managed to complete our trip, without undue haste, in seven days, including driving time from Toronto and back.

The other two sides of the "triangle" are well worth the trip. The first section is made up of the Lady Evelyn Lake/River system. This area will be familiar to most who have travelled in the Temagami area as it is one of the most popular routes in the district. Beginning at Mowat Landing, one paddles across the Montreal River and portages around the Mattawapika Dam to gain access to Lady Evelyn Lake. This scenic 30-km lake is studded with islands and has a number of eskers along the middle section of its southern shore. Although there are a number of both cottages and lodges on this lake, in May traffic is light and the sense of isolation is sufficient to satisfy even the wilderness purist.

After travelling a short segment of Sucker Gut Lake the route enters the Lady Evelyn River Provincial Park. In the next five kilometres there are a series of three waterfalls which, particularly at high water, are quite spectacular. Configured like a miniature Niagara Falls, Centre Falls on the Lady Evelyn drops 10-15 metres over a broad expanse and then makes a 90-degree turn into a canyon. On the opposite side of the canyon there is an outstanding, flat, grassy campsite which faces directly toward the falls – truly a sensational setting.

Be forewarned, however; Temagami portages, particularly in this area, are no picnic! While usually not overly long, the terrain can be very rugged (just picture rock climbing with a canoe on your back) and the portages typically begin with a "boulder beach" which may be anywhere from 10 to 100 m across. It is in this sort of situation that I appreciate the principle advantage of an abuse-absorbing, aluminum canoe.

Having relatively little experience in upriver travel, I was anxious to try out, in the swiftwater sections, the "one-rope-attached-to-both-ends-of-the-canoe-and-held-in-the -middle" method of tracking which R. M. Patterson describes in *Dangerous River*. I was delighted to find it both simple and effective – a great alternative to a portage where there is sufficiently open shoreline. As the need to maintain my footing along the boulders commanded a substantial proportion of my attention, Joan was also able to fulfil a useful role by following behind and yelling at me whenever she thought that I was letting the angle get too broad.

Permit me a brief digression to talk about the weather. One of the reasons that Joan and I enjoy tripping at this time of year (first half of May) is that the weather is usually very pleasant with little rain, cool nights, and warm days. The weather encountered on this trip could best be described as "variable"! On days one and two it was swelteringly hot to the point that Joan went for a swim in the frigid waters of Katherine Lake to cool off. A certain member of the party, who shall remain nameless, was heard to remark that a pleasant northern breeze would be a welcome relief. Someone up there listens to remarks like that! After a refreshing interlude of 24 hours of rain, we awoke the next morning to find there was two centimetres of ice on the top of our water bucket, and the clothing we had hung out to dry the previous night was frozen stiff. As we paddled up the lake into a 40 km/hr "northern breeze," which blew fine snow into our faces, I wondered why the sound of the wind seemed so much like a deep voice laughing!

Bugs are seldom a problem this early in the season and this year was no exception. We saw few mosquitoes and the black flies, not yet in their June numbers, seemed relatively sluggish and inactive as if they had not as yet come to realize fully their "raison d'etre."

At Macpherson Lake we left the Lady Evelyn system to paddle up Grays River. Passing through Graymud Lake we were able to appreciate the appropriateness of the name. The lake is so shallow, even at spring water levels, and the deepwater channel so difficult to follow, that progress seems to come at an inflated price. It must be a challenge to keep afloat in the summer but one certainly wouldn't want to have to wade.

After paddling up Grays Lake into the previously mentioned headwind we crossed the height of land via the only long portage on the trip, a 1200-m hike into Banks Lake. The first 200 m of this portage are described as being "quite boggy." This is no overstatement! While carrying my trusty wanigan, I stepped rather incautiously into a puddle and came to an abrupt halt when one of my legs suddenly became one metre shorter than the other. As I was already somewhat cold, wet, and out of sorts, my wife kindly refrained from laughing, thereby saving me the trouble of a messy decapitation.

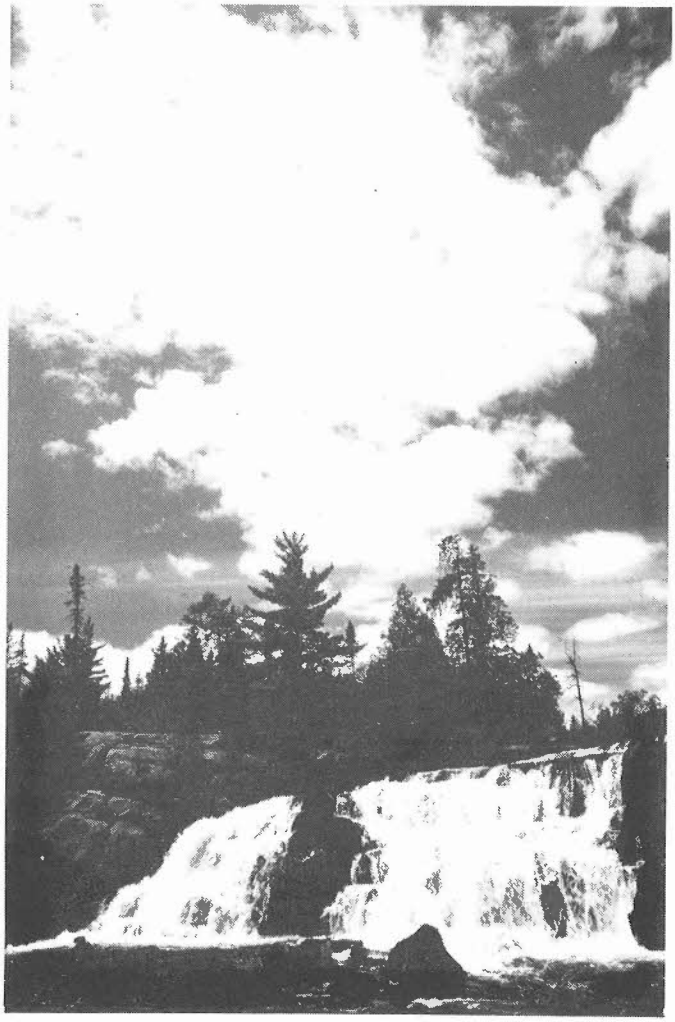
From there on the route enters the Makobe River and it's "all downhill." The river continues through shield country until it drops into clay belt just before reaching Elk Lake and there are a number of attractive, small waterfalls as well as many runable rapids. These rapids tend to be boulder gardens, particularly at their lower ends and I doubt that many

of them would be runable in the summer; if you plan to do this trip in July or August, be prepared for a lot of wading or lining.

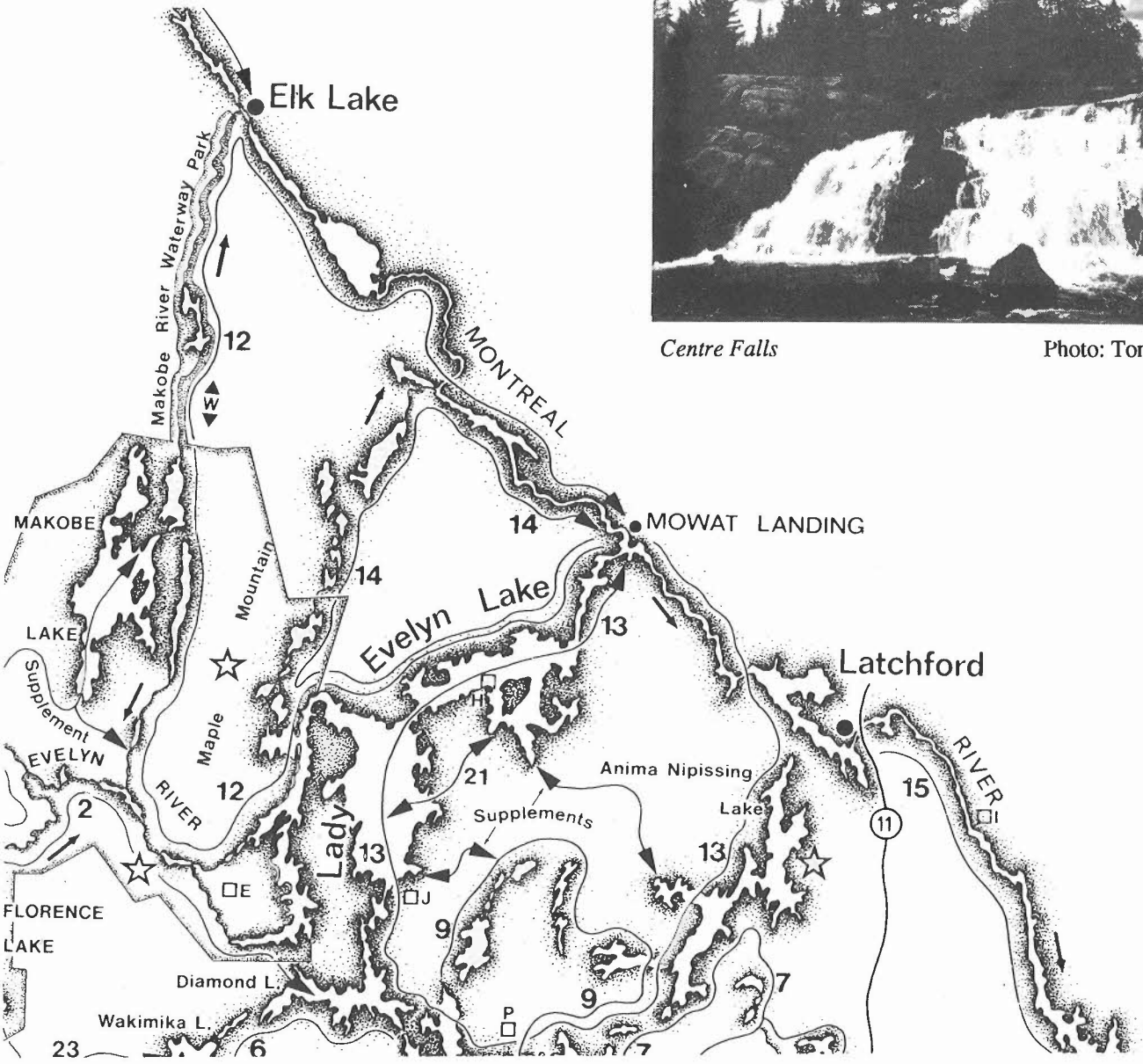
We found Hap Wilson's detailed descriptions of the rapids to be very accurate and relied on them to the extent that, except where he recommended it, we did not bother to scout for ourselves. Our only mishap, a "broadside and swamp" which was corrected at no greater price than getting out and lifting our canoe off the offending rock, occurred through no fault of Hap's but rather because I had forgotten to turn the page. Afterwards we both agreed that it was a good thing I hadn't read the description because we might not have run the rapid and it was rather fun!

After a last glorious morning in the swifts and shallows around the Bear River junction, we pulled into the Elk Lake Municipal Campground, the end of the Makobe River, and also of our trip.

In summary, I feel that this route came up to all my expectations and I would heartily recommend it to others – but only as a springtime trip.



Centre Falls Photo: Toni Harting



Map from "Temagami Canoe Routes" (Hap Wilson)

KEEPING IT DRY

My sympathies are extended to Don Smith regarding the problem with green garbage bags which tear under even minimal stress in packs (see *Nastawgan*, Autumn 1991, page 8). You are not alone; most people have cut their teeth on green plastic garbage bags. Well, here's a technique we use, surely employed by many others too, which may be of some help. This is of course exclusive of the big, heavy, soft, vinyl pack-liners with their foolproof closures, which would be important to have on whitewater in remote wilderness.

Bernard and I purchase clear 6-mil plastic bags, which hold 80 lbs. of sand, at our local sand and gravel supply. We also acquire an old automobile inner tube. This Bernard cuts into rings which are really giant elastic bands one inch in width. The trick is *not* to cut them straight across, but at an angle. (If you cut them straight across they will be too small in circumference.)

We then stuff our clothes, let's say, into one of these clear plastic bags, allowing enough free space at the top to fold the top into a point and roll it down. To be most effective, it pays to kneel on the bag and expel all the air. In fact, it is almost necessary anyway to kneel on the bag to get the elastic band around it.

We use these bags for nearly everything we pack — sleeping bags, clothes, food packages, etc. With care we can make them last one season, but we check them at intervals, occasionally patching them with duct tape to tide us over, and often carrying two extra bags, just to be on the safe side.

This is not a perfect solution, but we've remained dry so far, and recommend this idea for now. Perhaps other WCAers will reveal even better tricks of the trail.

Claire Muller

HERB'S POPOVER IS NO PIECE OF CAKE

Geriatric newcomer to the WCA that I am, I was interested to see listed in the last issue of *Nastawgan* under 'trips' a notice for other old and/or out-of-shape derelicts to join Herb Pohl on a short circle/circuit route in Algonquin Park. Then followed a mouth-watering description of a leisurely breakfast of pancakes and bacon on a frosty morning with a crackling fire, and at the end of the day the application of internal liniment; I was suckered.

Early on the first morning I found my partner, 6' 5", 215 pounds "when in shape" and said: "Ah ha! He should be great on a portage; but wait – there's his pack, almost the same dimensions!" Then I met a Bill Mason clone/clown, our leader, waiting to borrow a map, life jacket, and matches. After further introductions and a quick breakfast we moved off – just a popover to the next lake. For us senior-citizen-card-carriers this sounded great. "How long's the portage, Carl?" "1705 metres and the next one is 1113 metres followed by . . . " – he rattled off the distances for the next three.

By the time I had got my stiff joints out of the canoe at the first portage, he had disappeared up the trail followed by Debbie, also a new member but by no means a tyro — from her computer-tuned canoe, plastic paddles, and packs, she was state of the art personified and handled everything in a similar manner.

Nobody walked. Everybody except Bill (who carried his pack and mine) and I, ran – and this was not the shuffling gait of the Parkinsonian sufferer, but a light-hearted skip, and woe betide you if you were in the way, you were tramped in the mud. By the end of the day, in the pouring rain, setting up camp was much the same. In a flash every tent except mine was up. Debbie even had a beautiful fly that gave protection to all of us supper cooks. Thank heaven her stove would not light – that would have been too perfect.

Carl, by this time, had a roaring fire going out in the downpour and was cooking his supper in the wet, but it was too far away to give those cowering under the lean-to any warmth. Then came the advertised liniment – Tang Tea, the 'Ne plus Ultra' of the bush.

Three inches of rain and eight hours later we woke up to a new day – Carl repeated his brilliant exploits, starting the fire in the rain to cook his porridge. I cooked bacon to try to get back to the trip description and subsequently shaved and embarrassed Debbie into brushing her teeth. A unanimous leader's decision, unanimous to the leader, opted for the short route home – 415, 185, 835, 310.5 metres according to Carl.

The mad dash back was interrupted only by another non-democratic meeting to decide the lunch site. This of course was not on that beautiful sun-drenched beach where we stood, but back at the wind-swept access. Jim was the first home, having until now hidden his Coleman lantern under his smart olive safari jacket. He slid down the corduroy-lined creek bed that doubled as portage, leapt into his yellow canoe, and was gone.

Bill and I only managed to keep up because Herb cleverly lent Debbie a double-bladed paddle to try out, hoping that she might do an unplanned Eskimo roll, slowing her down. However, we all arrived back at the access point and had a comfortable lunch and long discussion. It takes all sorts to make a world — Thank Heavens, what fun!

John Rose

EAST OF JAMES BAY

The melancholy cry of a loon
echoes through
these northern wilds

It is a solemn land
a lonely land
a patient land
waiting
unchanging

Frozen in time
Age and rock
Water and bush
A crucible of life
A refuge for
mammals and birds and fish

Old Indian campsites
Voices from the past
shrouded in darkness
and imagination
The progression of life
slowly marching
towards the morning light

But voices from the present cry
'steel concrete power'
these are "real needs'

Foreign men
who have no roots here
are building
roads and dams

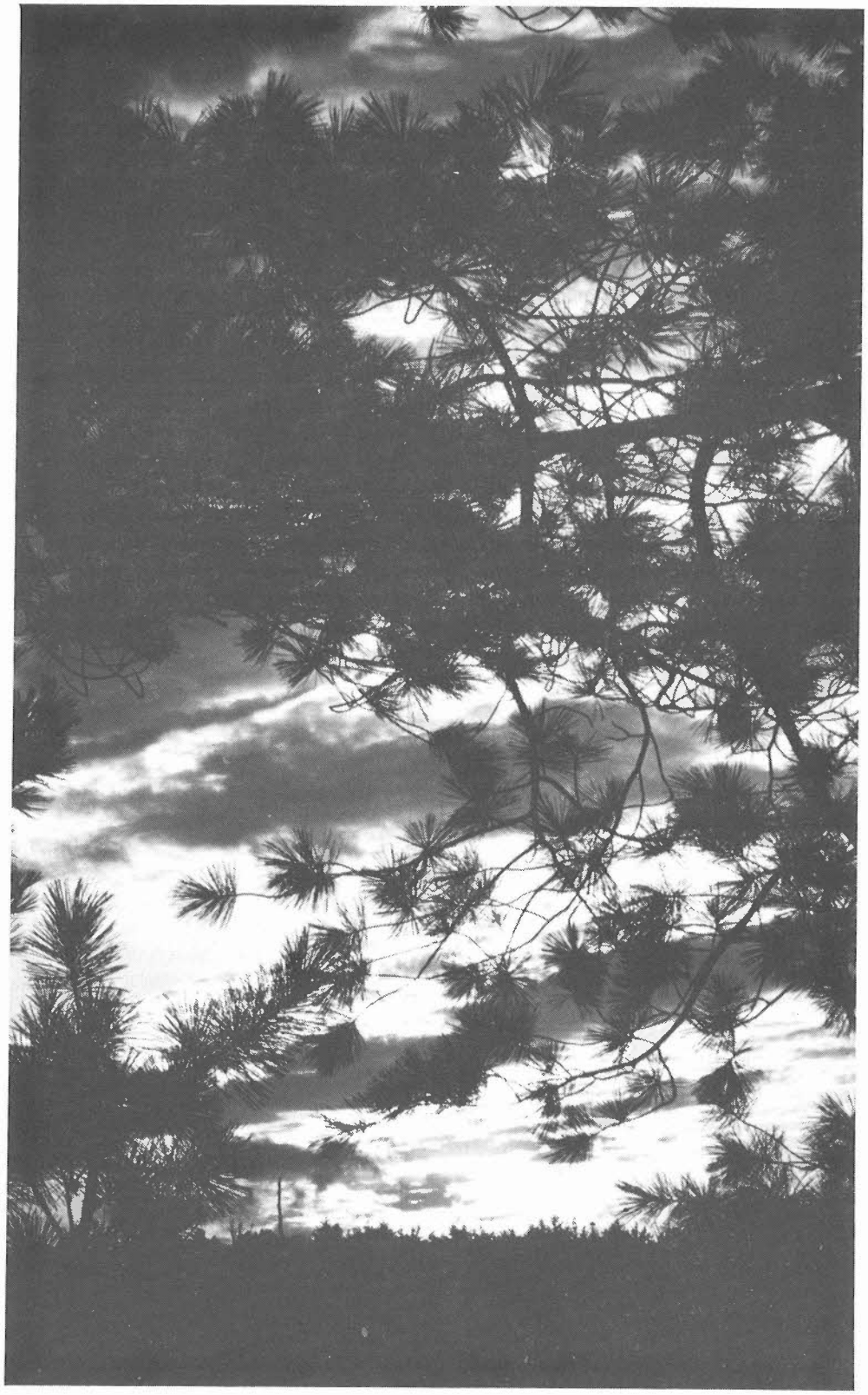
To bring a flood
To erase
a treasured gift
which they don't see

Let the Cree
who live here
Who buried their fathers here
Who watched cold and winter
and starvation
and survived

Let these people decide

Their silent gaze speaks
of memories and needs
of animal spirits
and ancestral deeds

This is
their native land



George J. Luste

(This poem was inspired by a 1973 canoe trip through part of the area affected by the James Bay hydroelectric project, and was published in The Globe and Mail of 8 September 1973. It is as relevant now as it was then.)

THE DRYFLY

Dave Buckley

I was looking through one of those wonderful old issues of *Nastawgan* when I came across Richard Smerdon's article on the Kitchen Fly (Spring 1985, page 20). Inasmuch as the issue was several years old, I thought the time might be right for another exposition of this most useful camping adjunct.

Rainflies and tarps just don't get any respect. They're often among the first items to be left at home to reduce pack volume or weight. After all, few of us want to concede the likelihood of a rainy trip, even by implication. Yet, for many northern canoe outings, a good rainfly can be the difference between enjoyment and endurance.

We began using a basic rectangular rainfly on ice-out fishing trips. Over the years, many hours of fly-sheltered contemplation have prompted changes to the common design that we believe improve the rainfly for canoe-tripping. Here is a description of these alterations and suggestions for setup and use of the DRYFLY.

GENERAL DESIGN – SIZE & SHAPE — Start with a 9X10 ft. rectangular tarp with brass grommets on the long sides and sew triangular nylon 'wings' to the short sides. Each wing adds about five feet, making the overall length about 20 ft.in the front and 10 ft.in the back. In use, the wings are pulled down to deflect wind from the side and to permit placing extra gear close to these end walls.

Two nylon web loops are sewn to the centre seams of the fly to attach a back suspension line. Two more small loops are affixed to the inside at the same place. These serve as centre guides for a clothes drying line that can be strung from small loops at the wing seams on either side.

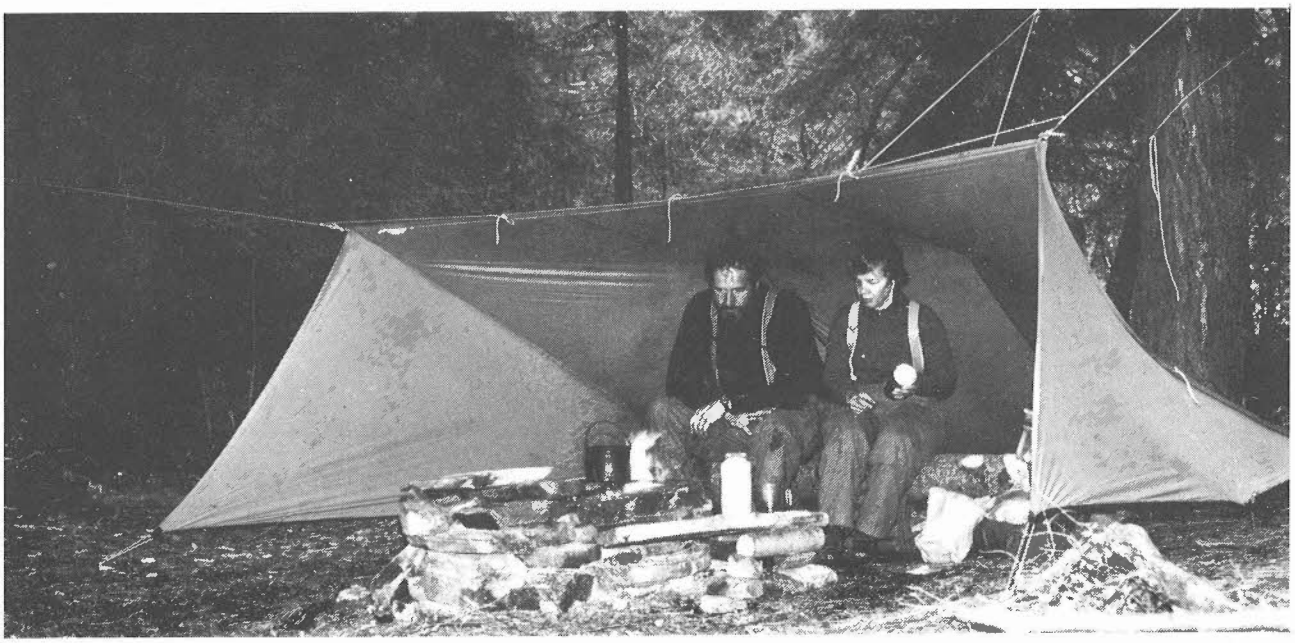
Short tie lines are attached to the grommets at the front (top) edge of the fly. Longer, two-position tie lines are attached at the rear (bottom) edge.

MATERIAL & WEIGHT — The Dryfly is made of 2.2-oz. coated ripstop nylon (green of course). Including the added 'wings' it weighs less than three pounds. Accessories (lines, ties, pegs) add about a pound. The lines and stakes are carried in a small stuff sack, wrapped into the fly body. The whole package is folded to fit under the top cover of Beth's Grade VI pack. The fly is thus available for set-up without opening the inner pack closure. Also, if we're forced to pack up again in the rain, the wet fly doesn't soak the pack contents. The folded Dryfly measures about 18" X 8" X 1 1/2".

ACCESSORIES

(1) About eight 8-inch stakes.
(2) 50 ft. hard-braided 3/16" nylon front suspension line.
(3) 25 ft. ditto back suspension line.
(4) Short and long 3/16" nylon ties at grommets.
(5) 15 ft. of 3/16" nylon line for clothes or to extend other lines as needed.
(6) Seam sealant and spare 3/4" nylon webbing.
(7) Small stuff sack for stakes, sealant, etc.

SET-UP & USE — The Dryfly body is strung taut along a suspension line that is prepared beforehand with two small fixed loops, the first about 12 ft. from one end, and the other 10 ft. from the first. In most set-ups, the end of the suspension line closest to the first small loop is tied to a tree with a "slippery" knot, one that will untie with a tug on the loose end (a slipped clove hitch or timber hitch). The line is then stretched very tightly and secured (tautline hitch) to another tree some distance away. The location of the fly body on the line is determined by the two small loops and their position should be judged accordingly. Ties on the top corner grom-



mets are attached to the loops, stretching the fly body along the suspension line. The suspension line takes most of the stress. Short ties at the other top grommets hold the front edge close to the line.

The final location of the fly body depends upon the height of the line and how much you figure the body will be pulled rearward by the stakes at the bottom edge. The rear (lower) edge of the fly body is pulled back to stretch the fly moderately tight and is then staked in place. The longer, two-position ties at these rear grommets permit the lower edge to be snugged to the ground or left a bit higher to allow air to come through from the rear to clear smoke. (More about this later.) The wings are pulled down and generally forward, then staked in place.

The fly body is lifted backward by the back suspension line. This line attaches to webbing loops added for that purpose toward the middle of the fly body, about three to four feet back from the front (upper) edge. The back suspension line is strung over a branch or to a tree above and to the rear of the fly body. The line is pulled snug (tautline hitch) to lift the centre of the fly upward, providing more room inside and improving rain drainage. If no trees are handy, the lines can be staked at ground level and a forked poles used to support the fly. But, in real wind, this can spell trouble, as witness the efforts of Bill Mason and his family in "Song of the Paddle."

The body and wings should now be strung taut and relatively wind-proof. The fly must be rigid enough to prevent flapping, but not stretched so tight as to over-stress the lightweight nylon. In evaluating tautness, bear in mind that nylon stretches more when wet; shrinks back when dry.

Avoiding windy locations will substantially reduce smoke eddying into the fly from the campfire. Also, dry wood and a uniform hot fire will help avoid periodic smoke-outs when adding fuel. In really nasty weather, string the fly close to a rock face or thick bank of low conifers. This will further assist fire draft and will minimize smoke. The bounce-back of radiant heat into the fly is considerable.

Generally, the front (upper) edge of the fly should be about five to six feet above the ground and about two feet behind a vertical extension of your campfire. Just how close you string the fly above the fire depends on how big a fire you build and how well it drafts. But nylon, especially light nylon, can disappear in a hurry if it gets too hot. This is a judgement call. If you're in doubt, err on the safe side. A plumb line dropped from the front edge will confirm distance from the fire and is also useful in locating bench logs. The idea is to sit with your knees just behind the drip line so that you're dry but still as close to the fire as possible.

In our canoe-camping clinics, Beth and I stress the importance of working out the kinks in all your gear before you leave home. Find out what works, and what doesn't, before you're in a situation where your comfort or safety depends on the outcome. This is certainly true of the Dryfly. Since there is no hard frame as there is in most tents, the end location of the fly body is dependent upon how much the lines and body stretch. You have to envision the erected fly in place before you start and then string it to be there when you're finished. That takes practice. Erecting the fly at home a few times can save great frustration on a darkening campsite in a downpour.

Sometimes, even practice isn't enough. This past summer, we were on a river trip with Doug Taylor, of Saskatchewan's Museum of Natural History in Regina. I had been waiting for an opportunity to reciprocate for Doug's generosity in sharing his knowledge of northern flora and fauna. One evening, with dinner simmering on the campfire, a towering thunderstorm rolled toward our open-jack pine campsite. Eyeing the dark squall line and brilliant lightening, Doug allowed that dinner would have to wait.

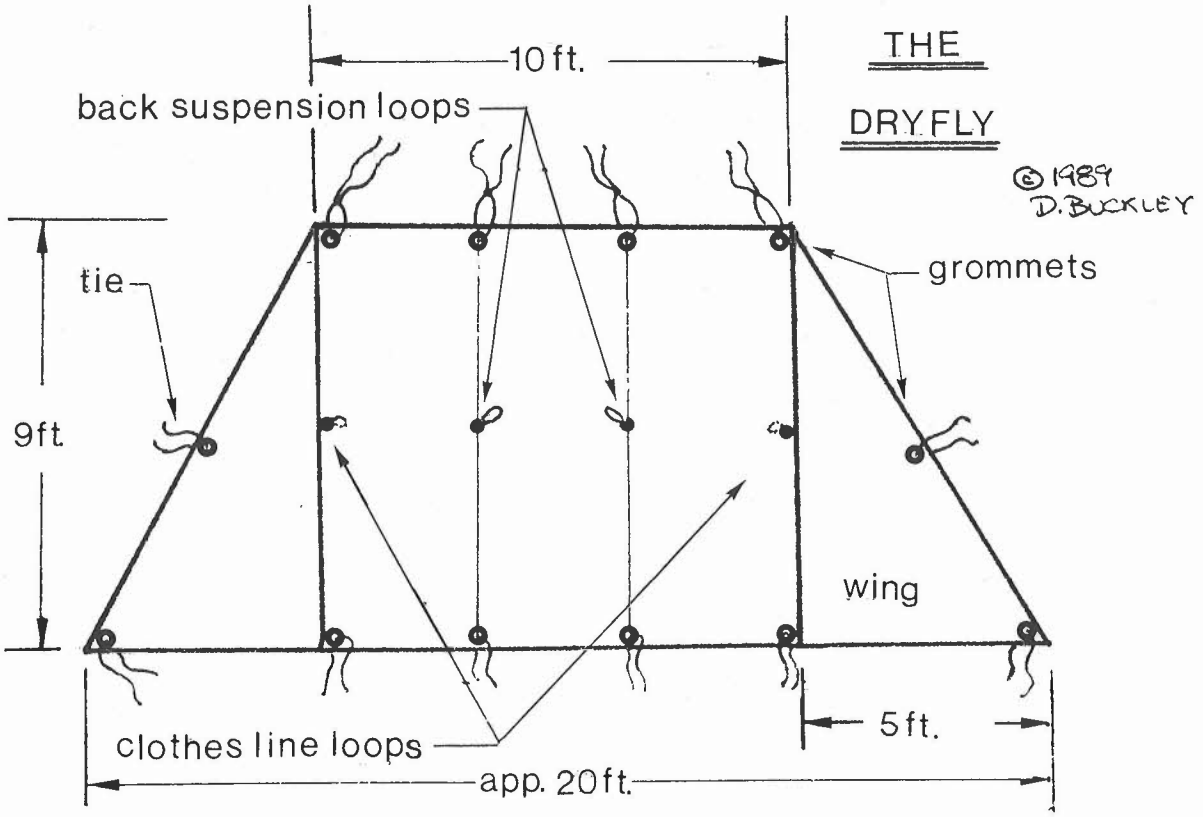
"No problem!" said I, confidently unfolding the trusty Dryfly from the pack. I looked around for suitable trees. There were plenty nearby, but none of them were close enough to use with the fireplace . . . and that's where I made my first mistake. I strung the fly on a long line between a spindly spruce and a jack pine branch in order not to have to relocate the fireplace. Then I pulled the Dryfly taut with pegs pushed into the sandy ground at the rear . . . mistake number two. I had a momentary qualm about wind direction, but the air was perfectly still, just hanging there. My concern was quickly pushed aside by the realization that the fly was set up to provide a great view of the approaching pyrotechnics . . . strike number three.

We placed all the packs back under the fly to serve as backrests and settled back to tend to the cooking. Everything seemed under control.

Then the storm hit. Crashing lightning, sheets of driving

rain . . . and roaring wind. Within seconds it was apparent the fly was pitched dead wrong for the wind direction. The rain snuffed the fire and the pots and pans were awash with water. Four of us crawled up and over the packs to cower in the narrow space at the rear of the fly. That worked for a few moments. The no-longer-dry Dryfly bulged and surged in the fearsome wind. Then, with a "pop" the rear stakes blew skyward. Now we crouched under a giant horizontal flag that flailed water into any part of us that might somehow have escaped soaking. I yanked the release knots on the front line. The great fabric beast fluttered earthward.

Mercifully, the storm passed as quickly as it had come. As I gathered various parts of the failed refuge, I sneaked an embarrassed peek at the "Man From Regina." Doug was unperturbed. He knelt at the sodden fireplace, draining water from his bannock pan, while holding aloft a small umbrella.



THE LONG PORTAGE

Loaded down for the second trip over the portage. Loaded down big time. Using shoulder straps to carry a bag on the back and then putting the arms through the shoulder straps of a second bag to carry it in front. A third bag piled on top by a more than accommodating partner. One less for him to carry.

Straps cutting into the shoulders. Neck aching from the third bag. Dripping sweat already and haven't started yet.

This portage a mean one. Not cleared and lots of downed timber. Boggy trail and wet bushes. No view. Not going to be an easy carry.

Standing here thinking of the ordeal ahead. Not going to go away and no one else is going to do it. Might as well start but can't force the left foot to take the first step. Asked it why. Says it remembers the army. There the left foot always went first. What came after was almost always not fun. So the left foot doesn't want to go. It's been there before.

On the trail. Finally. A step at a time now. Whacking through the bushes. On and on. A long one. Can hear the water roar to my right but can't see it. Finally had to put the bags down. Just need a couple of minutes rest. In the shade, but it's hot and humid. Sitting on a bag and the mosquitoes attack in squadron formation. The dive bombers from hell. No rest here, so it's back on the trail.

After forever, notice that the gloom is getting lighter. Just a few steps later break out into the sun and the wind and the hard rock at the tail of the falls. Put the bags down next to the first carry. Just the canoes left back to bring over.

Breeze feels good. Keeping the mosquitoes at bay. Outstanding view of the falls pouring out of the gorge. Dark pool at the base of the portage trail looks fishy.

Going to see if the buddies want to eat lunch here. Maybe fish. Maybe take a swim.

Much later. Checking the bags prior to shoving off. This portage not so tough. Wonder why we thought so earlier.

Greg Went

CANDIDATES FOR BOARD OF DIRECTORS

The following are the platforms for candidates for the 1992 Board of Directors, received before our publication date. Any other members who wish to run for the Board may do so by letting the Board of Directors know, or by placing their name in nomination from the floor of the AGM in February 1992.

BRYAN BUTTIGIEG

During In the four years that I've been a member, the WCA has given me the opportunity to meet other people who share the same interest in wilderness canoeing. Through *Nastawgan*, workshops, and trips with other members I've taken great advantage of that opportunity. Participation on the Board is a chance to give something back. I support the current direction of the WCA and look forward to helping in whatever manner I can.

BOB SHORTILL

As a five-year member of the WCA, I have decided to respond to the call for more involvement by the membership. When I joined the WCA I discovered a group of friendly, helpful, and genuine people who love to grab a paddle and get going. I have read the debates about the future of the club and whether it's being true to its founding philosophy. Perhaps we would all like to go off on a far north trek, but the realities of job and families restrict us to shorter but no less rewarding adventures.

I would like the opportunity to contribute to the ongoing success of the WCA, to help repay the good people I have paddled with, and to put something back into the sport/activity that gives me peace of mind and pleasure of spirit.

If elected I will endeavor to put a canoe in every pot. Vote Bob Shortill!

PETER VERBEEK

I have been a member of the WCA for a number of years. Recently, I received early retirement and have now more time available. If elected, I intend to learn the business of the Association so that I can begin to support existing Board members and in the future to qualify for one of the positions. I favor a WCA where less experienced canoeists can find inspiration and learn from the more experienced ones, with a variety of activities of different levels of difficulty.

MISSINAIBI WELCOME

While on a two-week trip on the Missinaibi River in July 1991, our group was treated most hospitably by the Reeve and others in Mattice who are very interested in developing the town's relationship with canoeists. We were also able to replace a broken canoe with another ABS canoe from the local outfitter, and he shuttled us so that we did not lose a day during the excitement – we timed the damage very well. I am giving the names and addresses of those we contacted in case this is of use to other members.

Reeve — Paul Zorzetto, Box 129, Mattice, ON, P0L 1T0, (705) 362-4373 (b), (705) 364-3446 (h).

Shuttle — Mattice to Cochrane — J. A. Rolland Brunelle, 240 Balmoral Ave., Box 89, Mattice, ON., P0L 1T0, (705) 364-2121.

Missinaibi Outfitters / Shadow Lake Camping — Owen, Box 2311, Hearst, ON., P0L 1N0, 705) 364-7312 (summer), (705) 362-8873 (winter).

"Au 4 Aces" Restaurant — 228 Rue King, Box 99, Mattice, ON., P0L 1T0, (705) 364-4316. The bus will leave shipments with the owner of this restaurant for later pickup; arrange ahead. Arrangements can also be made with him for obtaining supplies en route.

Dorothy McLaughlin

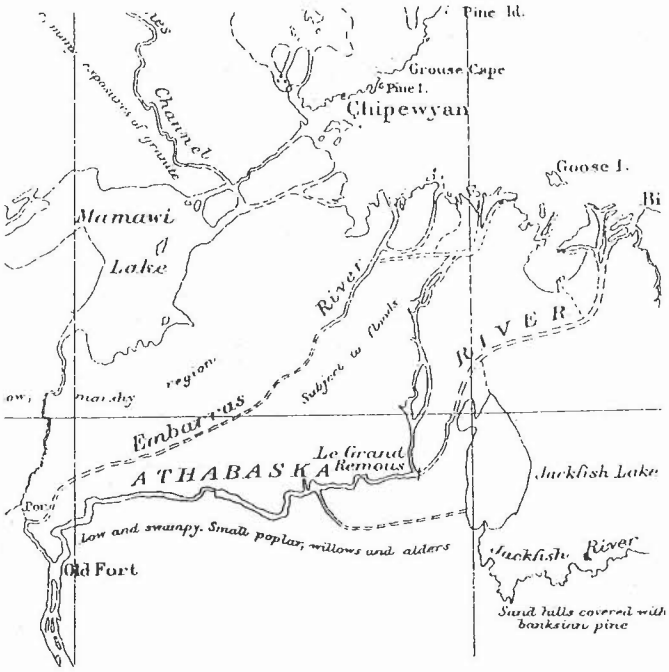
TOWARDS THE BARRENS

Steve Read

THROUGH THE ATHABASCA REGION

I put in on the Athabasca River on 16 June 1990, at Fort MacMurray. I wanted to paddle my way northward to see the change in vegetation and landscape en route to the Barrens. The Athabasca River was the traditional highway to the northwest, and E.T. Seton in his *Arctic Prairies* leaves a description of run-off conditions as true today as it was in 1907: "Down Athabasca's boiling flood of seething, leaping, coiling mud."

Shortly before reaching Lake Athabasca a tributary called the Embarras River leaves the Athabasca River. I could see that if it were possible to portage from the Embarras to Mamawi Lake, then the need to paddle around the delta to reach Fort Chipewyan would be avoided. I had been hoping to meet someone along the river to direct me to the portage, but meeting no one, I continued on to the delta. In the lower Athabasca the vegetation is thick and lush. Tom Macallum ran a sawmill here in the late 1930s. The river was high, and continual mudbanks made landing difficult and campsites hard to find. The trees first gave way to willow brakes, then scrub, and finally reed beds as I paddled out into Lake Athabasca with its teeming flocks of wildfowl. Fortunately, I was in settled high-pressure weather; this would be a dangerous place to be caught in bad weather because there is no solid landing.



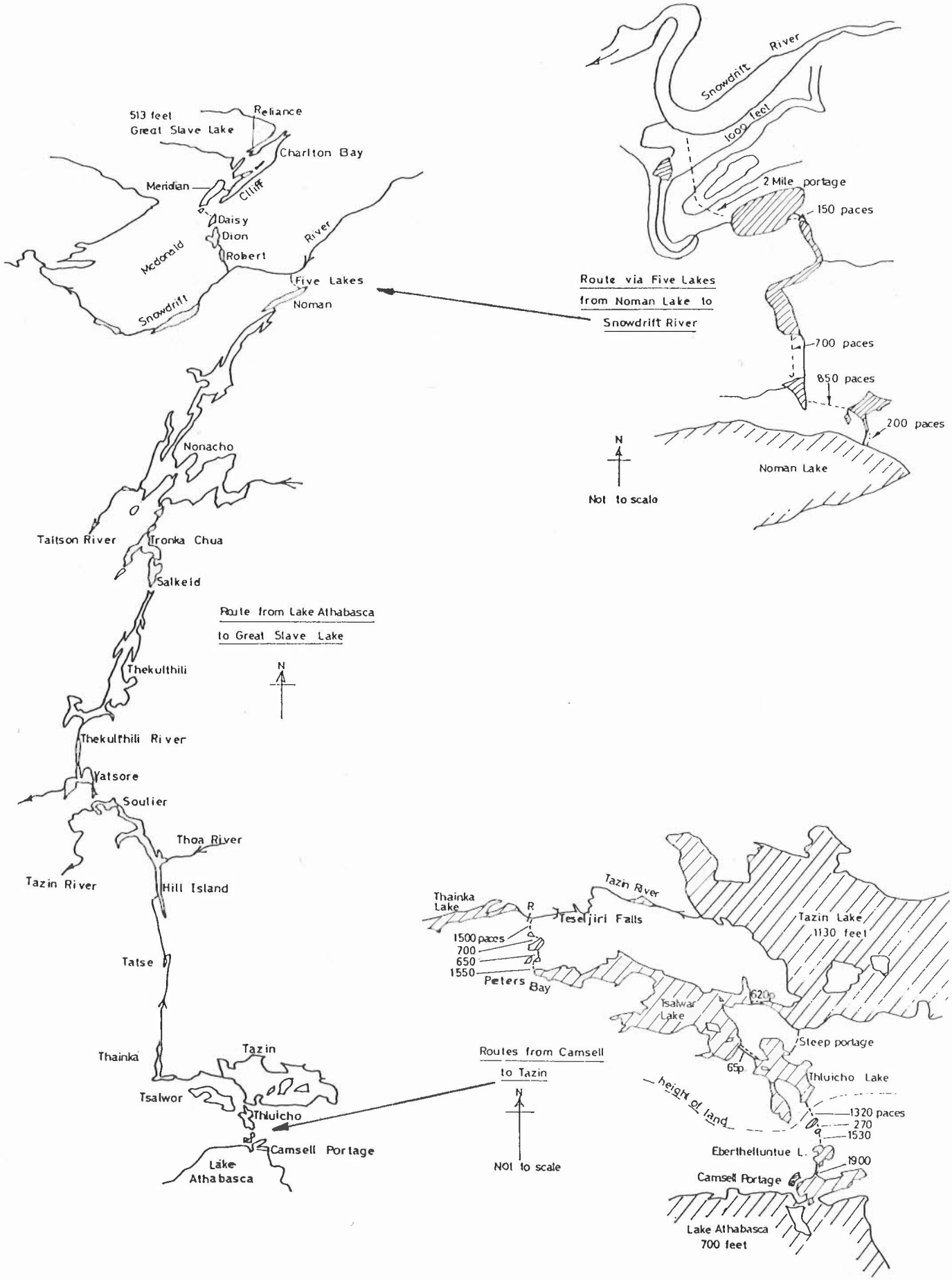
Section from Charles Camsell's 1917 map showing the portage from Embarras River to Mamawi Lake

Halfway around the delta to Fort Chip, the first gneiss rocks of the Canadian shield are met. Their strength and stability were a sight for sore eyes after the submerged landscape I had just left. At Fort Chip I had a long chat with an 80-year-old veteran of the north, Rod Fraser. This had been the Hudson's Bay Company's main trading post in the northwest, and he had worked for them as a lad, freighting scows down the Athabasca River.

This was my first chance to paddle a big lake, and I made the 193 kilometres to Camsell Portage in nine very enjoyable days. The north shore of Lake Athabasca is beautiful. The low, rocky cliffs are split by sandy bays with open, park-like vegetation, giving superb campsites with plenty of driftwood. Only on the first day from Fort Chip did the cliffs reach any height or length, and with the deep water I had the sensation of being on a ocean swell. It was here I began my habit of getting up at 3:00 a.m. and away by 4:00 a.m.. The quiet time on lakes is between 12 midnight and 12 midday, but the magic hours are around dawn when the canoe seems to float along effortlessly between water and sky. The body is refreshed, the mind is alert, and the imagination really gets going. It was on one such silent morning, as I floated past a low bank in the gloom of pre-dawn light, that I discerned the shape of a sleeping moose. She was hunkered down with her head leaning sideways against a fallen tree. I jumped on the brakes and drifted by, marvelling at such an unusual sight. It made my day when she opened one eye and winked at me.

My paddling day would end sometime after midday, and I would look forward to a few hours of sunbathing or fishing. By aiming at a realistic 16 kilometres a day for lake travel, I had little trouble achieving my goal, and felt under no pressure to keep moving. I had no qualms about pulling in when the storms blew up, although I did misjudge the effect of the wind at one point, which taught me a lesson. On rounding a point of land in a stiff onshore breeze, I found a broken reef extending 800 metres lakeward. The parallel bands of rock, with quieter water between them, were half submerged by breaking waves. I had to go around or through the reef, but ended up being blown onto it. I jumped out, dragged the canoe over the first obstruction, and stood there up to my thighs in pounding surf, holding the bobbing, slightly abraded canoe, and thinking very fast. I realized that my next decision had to be the right one. I could see no way through the rocks, so I leapt into the canoe and paddled out until I could jump onto another submerged rock and help the canoe over into the next channel. I repeated this until I spotted a way through the final barrier into quiet water. I was lucky, but I also had a very stable canoe.

I had raised a 1.2-metre mast and used a small sail to good effect on several occasions. Most high-pressure breezes helped me from the southeast, while the cold low pressure winds blew against me from the northeast. I also


513 feet
Great Slave Lake
Reliance
Charlton Bay
Meridian
Cliff
Daisy
Dion
Robert
River
McDonald
Snowdrift
Five Lakes
Noman
Nonacho
Taltson River
Tronka Chua
Salkeld
Thekulthili
Thekulthili River
Yatsore
Soulier
Thoa River
Tazin River
Hill Island
Tatse
Thainka
Tazin
Tsalwor
Thluicho
Camsell Portage
Lake Athabasca
Route from Lake Athabasca to Great Slave Lake
N
Not to scale
Snowdrift River
1000 feet
2 Mile portage
150 paces
Route via Five Lakes from Noman Lake to Snowdrift River
700 paces
850 paces
200 paces
Noman Lake
N
Not to scale
Thainka Lake
R
Tazin River
Teseljiri Falls
Tazin Lake
1130 feet
1500 paces
700
650
1550
Peters Bay
Tsalwar Lake
620p
Steep portage
65p
Thluicho Lake
height of land
1320 paces
270
1530
Eberthelluntue L.
1900
Camsell Portage
Lake Athabasca
700 feet
Routes from Camsell to Tazin
N
NOt to scale

found this true farther north on the inland lakes.

On the final day to Camsell Portage a lake mist made paddling an eerie experience. Dripping cliffs loomed out of the gloom and navigation was difficult. A loon made me jump by making its evocative cry unseen from ten metres away. I was in the habit of replying with a yodel, which I affectionately dubbed the "Cry of the Loonatic." The mist lifted in time for me to avoid the last large island by paddling through 1.6 kilometres of reed beds as I reached for the bay which sheltered the houses of Camsell Portage.

INTO THE BACK COUNTRY

My aim was to travel the 530 kilometres from Camsell Portage, on Lake Athabasca, to Reliance, on Great Slave Lake, via an overland route of small lakes and rivers. I was lucky to meet Florence and Peter Stenne, and his father, Philip, on my arrival in Camsell Portage. They helped me obtain final items of food which I required for the 50 days, and gave me a lot of information. I had read Charles Camsell's *Son of the North*, and knew that I would be following his route of 1914 as far as Soullier Lake on the Tazin River. Now Peter offered to lend me Camsell's geological report, which detailed the route portage by portage. This was a lucky break for me and was typical of the hospitality I received from the Stennes in Camsell Portage. In the report was a copy of Camsell's map, which showed the portage I had missed from the Embarras River to Mamawi Lake. I also learned of the dam being built where the Tazin River leaves Lake Tazin. Eric Morse had mentioned a restricted flow down the Tazin River in the 1970s, and this looked like a further restriction.

I was looking forward to some leg work as a contrast to paddling, and the six portages between Camsell Portage and Tazin Lake turned out to be well-used winter trails. The route makes four portages to Thluicho Lake, gaining 137 metres to the height of land before descending a little to the lake. As I had to make five carries, I crossed the height of land nine times. The first and fourth were the steepest.

From Thluicho Lake there are three alternatives. The most direct is a very steep trail northward into Tazin Lake, used only by winter travellers. The route used by Camsell and myself follows first the outlet westward into Tsalwar Lake, then the outlet eastward into Tazin Lake. The third option is the old Indian route from Peters Bay to the Tazin River. There is no evidence that this route has been cleared in recent years. I wanted to see Tazin Lake and particularly Teselhiri Falls, of which there is an impressive photograph in Camsell's report.

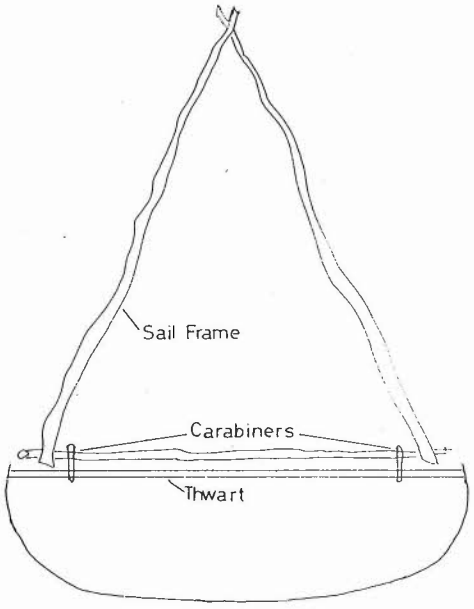
I left Camsell Portage on 7 July in bright summer weather. The area is hilly and heavily wooded. It took me three long days to get everything to Tazin Lake. Tazin Lake was a delight! I arrived at the dam site at 8:00 a.m., in time to enjoy breakfast with some construction workers. Everyone was very friendly, but I saw a few smirks as I prepared

to paddle a river that they had been trying to lower the level of for several weeks! I spent the first day wading and dragging from pool to pool, but thereafter had little trouble floating most of the time. Old, grey, waterworn boulder slopes rose 1.5 metres on either side of the meager flow, attesting to the lively nature of the river in Camsell's day. As I suspected, Teseljiri Falls was a shadow of its former glory. The portage of 500 paces on its right bank had been cleared in recent years, and the descent was down a steep, rocky gully. I was thankful for a canoe that weighed only 25 kilos and had a comfortable carrying yoke built in. The next portage before Thainka Lake (74N7433) of 330 paces on the left bank was entirely on large, grey, waterworn boulders. This was dangerous country for me, and my concentration had to be absolute. Fortunately, I have always been very sure footed, but pride comes before a fall, and a fall here could smash my canoe or my leg.

I had seen two beaver lodges, but both appeared abandoned due to the lowering of the water level. "Thainka" means "sandy narrows," and for the whole of its length the lake was hardly above paddle blade depth. It was split by two narrow sand spits, mentioned by Camsell. A large bull moose ran out along one to have a look at me. On the other a seagull roosted unperturbed.

The river flowed sluggishly all the way to Hill Island Lake, and the weather deteriorated. I had wanted to see this lake ever since reading Samuel Hearne's account of his journey across the Barrens. He returned via Hill Island Lake in 1772 and mentions the distinctive hill on a small island halfway along the 48-kilometre-long lake. What was meant to be a highlight of my trip turned out to be the low point, for I was held up five days by wet and windy weather. This included two short dashes up the shallow west shore, then a retreat to a good campsite at the entrance to the lake, which showed signs of ancient burial sites. The east shore has no campsites, except in the bay at the mouth of the Thoa River. Camsell mentions an old Indian route from Fort Smith via Bedareh Lake which went up the Thoa River to the fall caribou hunting grounds on the edge of the Barrens. On the first good day I climbed to the top of the famous hill (75C6503) and added a stone to a very old cairn. At the lake's exit there is a half-built fly-in fishing camp, seemingly deserted. From here to Soulier Lake there are five rapids and four short portages.

The north end of Soulier Lake is a significant point in this land of a million lakes. I had chosen this spot on the map as the best place to portage toward the Thekulthili River. You can imagine my satisfaction when I found Camsell describe the portage as an Indian rendezvous where several routes converged en route to the Taltson River and the Barrens to the northeast. He says the portage begins at some "old Indian camps and fish drying racks," and both this and the next short portage into Yatsore Lake "are good and much used." Camsell made a side trip here to Thekulthili Lake before continuing down the Tazin River to the Taltson River, eventually reaching Great Slave Lake near Resolution. The original portage of 200 paces was choked by blackened snags, so I preferred to follow a slightly longer, clear, granite ridge to the east. From the summit I could see both lakes, and my imagination could see teepees and skin canoes.



Improvised canoe sail-frame

Thekulthili Lake was the most picturesque lake of the trip. There were no burnouts, and along the shore were striking rock formations. Big Pine Narrows is a constriction, dominated by a bluff crowned by mature pines, through which I was blown by a southwest wind. I found that I had to abandon my original mast and sail once I began regular portaging after Camsell Portage. I needed a rig that I could raise and lower quickly, and detach from the canoe in an instant. After some thought I made a triangular sail frame from light poles, 1.2 metres high, 0.9 metres wide, with a loose sail tied inside. The lower, horizontal pole was attached to a thwart by two carabiners and gave me sail-assisted paddling. It also doubled as a route marker on portage trails. It was on Thekulthili Lake that I smelt rotting flesh, and when I pulled out to pass a rock it turned out to be the bloated remains of a moose.

The route from Camsell Portage to Reliance involved 40 portages. Most were short and easy, on hard ground through open trees. Half showed signs of the original trail, or recent use. I used a compass to check direction all the time. Where there was no sign of a trail I would follow a bearing through the trees, marking my route with orange tape every 20 metres, or where necessary, to leave a trail I could see from both directions. There was something exciting about heading into the bush on a compass bearing and finding a lake at the end of it. On my last carry across a portage I would remove all the tapes. There were no portages between Salkeld and Tronka Chua Lakes, just several interesting narrows. I managed to paddle and line the rapid which flows into the north end of Tronka Chua. By continuing to the end of the arm, I found I was only a 65-pace portage from Nonacho Lake and the Taltson watershed. Near here I heard a loon on the lake crying a very violent alarm. It was rising to and falling from its full height, with breast out and wings paddling. It repeated this many times until it flopped back and began swimming. It was then I saw the large back of a pike which was being dragged through the water as it held the loon's foot. Pike weigh up to 23 kilos in these lakes and are known to eat waterfowl.

Norman Lake is the last in this highway of lakes where little height is gained or lost. I now wanted to reach the Snowdrift River, and managed to connect up five small lakes, a route of no little interest. The portages were fairly easy, and the last one rose through the trees and suddenly burst into the open on the edge of a scarp overlooking the Snowdrift valley. I could see the river meandering in the distance, with its sandy beaches glinting in the sunlight. Later from my camp on a bluff I watched a moose browse on the willows below.

After a day held up by thunderstorms I had an enjoyable 29-kilometre paddle downstream to a point below Robert Lake. There were two rapids; the first an easy run, and the second a short, well-marked portage on the right bank. The portage to Robert Lake took me five hours and was uphill all the way. At the lake I found I had missed a well-cut trail which appeared to follow a ridge of high ground from a point upriver of my camp. Both Dion and Daisy lakes had pristine campsites with sandy beaches and wall-to-wall caribou moss carpeting. I felt quite guilty, despoiling such beauty with my footprints. The sun shone and the light frosts at night cleared the bugs.

From my campsite on Daisy Lake I climbed a nearby hill and looked down toward Meridian Lake and the deep trench of Great Slave Lake. I sighted a couple of float planes, indicating activity at Reliance, and immediately began to feel that the country was getting crowded. Below me was a steep barrier called MacDonald Cliff, down through which I had to find a way. The map showed a break in the contours at the north end of Daisy Lake (75K3681), and I was pleased to find a trail here. This portage to a small lake just before Meridian Lake turned out to be the toughest of the trip, despite losing about 120 metres in altitude. There were several wet, marshy sections and three steep sections, one of which dropped through a rocky gorge, and route finding was difficult. I camped on a bear's favorite sunbathing spot that night, too tired to look elsewhere.

The creek into Meridian Lake was choked by a half-built beaver dam over which I managed to drag the canoe. The lake is surrounded by cliffs. I was held up two days by wind, but was lucky to have the company of three fresh-water otters. At the portage into Charlton Bay (75K4485) a black bear stepped aside and let me descend 60 metres down a good trail in peace. The final portage cut off a finger of land and allowed me to approach Reliance along the Maufelly Point, where I arrived 40 days after leaving Camsell Portage. Reliance has two permanent households, a weather station, and a temporary summer construction camp. I received real northern hospitality from them all, and left my canoe with Roger Catlin to await next year's trip.

WCA member Steve Read lives in England and has spent decades climbing and mountaineering throughout the world. He has taken to extended paddling in Canada's North, where he finds "the combination of history and wilderness travel in the archaic Canadian canoe a magical experience."

HMMM, TRAIL SIX HOURS OLD, THE WONDER-ANIMAL WENT THATAWAY

It is an unfortunate fact that we humans very often take a condescending attitude toward "lowly" forms of wildlife. We say unfortunate because the objects of our misplaced haughtiness are frequently capable of skills and sophistication that no supposedly superior human being could ever aspire to, let alone actually match.

Take for example the tent caterpillars which have reached tremendous population levels and have stripped the leaves from large forest tracts just west of Algonquin Park — though not yet inside. There are two kinds, the Forest Tent Caterpillar which has done most of the damage, and the Eastern Tent Caterpillar which makes the conspicuous white silken "tents" that are so obvious in many outbreak areas.

Skillful and sophisticated may not be terms that you would choose for creatures that can defoliate a forest in a few weeks and whose teeming bodies and droppings can make our lives unpleasant. We maintain, however, that tent caterpillars deserve at least a grudging admiration from us humans.

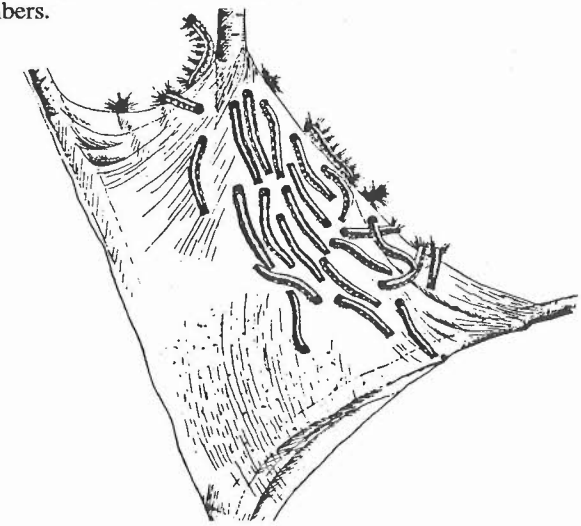
To begin with, they are undeniably successful. Very few insects achieve the population buildups shown by these species. Trees can often respond quite effectively to caterpillar attacks by building up chemicals that poison the caterpillars but nothing normally stops a tent caterpillar outbreak except certain parasitic flies. There is always a lag time between the increase in caterpillar numbers and those of the flies, however, and that is why, inevitably, tent caterpillars can wreak havoc for one or two years before being brought to heel by their little enemies.

But why is it that tent caterpillars, even if only temporarily, do so much better than other kinds? Let's try to answer this by taking a closer look at the Eastern Tent Caterpillar, the one that lives up to its name by actually building tents. One immediate advantage enjoyed by caterpillars of this species is that they get a good head start. Eggs are laid by adult moths in the summer but the embryos develop quickly and contain fully formed caterpillars before the onset of winter. Masses of 200-300 eggs on exposed branch tips survive winter temperatures of -30 C or colder because the unhatched caterpillars produce a chemical called glycerol as a kind of antifreeze that keeps the water in their body cells from freezing into damaging ice crystals. When spring finally rolls around, the several hundred brother and sister caterpillars hatch out at, or sometimes a little before, leaf-out. The weather is still very cool at that time of year but Eastern Tent Caterpillars do remarkably well, partly because of the food reserves they have carried through the winter, partly because of their built-in cold resistance, but also, and most importantly, because of the "tents" they build.

The tents are sizable, and some people would say unsightly, constructions of white silk, usually centred on some central fork or branching point in the tree that serves as a convenient base camp for feeding forays. Each caterpillar extrudes a strand of sticky silk from a spinneret on the underside of its head. When a caterpillar is exploring new territory, especially on a smooth tree twig, the silk lifeline greatly diminishes its chances of falling to the ground below.

When building a tent, or enlarging it as they often do several times a day, colony members wander about the existing surface, laying strands as they go and forming a new tent surface in about an hour's time. When the caterpillars encounter a supporting branch they crawl a short distance along it, and fasten silk strands to points a little beyond the existing tent wall. The mat of new silk, solidly anchored only at these points, shrinks shortly after being spun and lifts from the old surface forming a taut sheet separated from the old surface by an appreciable gap. Each new layer of the tent thus formed tends to be built facing in the direction of the sun at the time of construction. Tents end up being oriented to both the morning and afternoon sun and act as miniature greenhouses that provide significant warmth — not to mention protection against predators — for the caterpillars on cold spring days. On one such occasion a temperature of 40 C was recorded in the centre of a tent when it was only 10 C outside.

If these advantages weren't enough, Eastern Tent Caterpillars also have an astonishing communication system which effectively allows them to share information quickly about the location of good food sources. Whenever a caterpillar encounters good feeding and returns, well fed, to the communal tent, it anoints its silken trail with a special chemical produced at the end of its abdomen. Other caterpillars, setting out in search of food after a rest period in the tent, recognize these chemically flagged trails and follow them to the newly discovered food sources. The more caterpillars that anoint such trails and the fresher the perfume, the stronger is the stimulus to other colony members.



The actual chemical used by Eastern Tent Caterpillars has not yet been identified but one researcher has found that the caterpillars will follow lines drawn on paper with certain brands of lead pencil as readily as they will follow their own trails. The key thing is that some pencil manufacturers add components of beef fat or fish oil to their pencil lead. The caterpillars can even tell the difference between 3B and 4b leads.

Such sensitivity and finely tuned adaptations enable the Eastern Tent Caterpillar to thrive in our environment as few other creatures do and we think it deserves far more wonder and respect from us than is usually the case. Look at it this way. At the end of a fragrant silken thread lies a gorgeous, multicolored, and wondrously supple creature of the forest. It likes nothing more than to nibble on fresh green leaves or to curl up with its brothers and sisters in the warmth of its carefully woven tent. It does not engage in violence and would never dream of harming another creature.

So the next time you come across the trail of a tent caterpillar think about what a marvellous animal it is. In fact, don't just think about it, follow the trail to its source — presuming, of course, that you can match its skill and sophistication!

Reprinted from *The Raven* (7 July 1988), courtesy of Ministry of Natural Resources.

The Canadian Heritage Rivers System / Le Réseau de rivières du patrimoine canadien

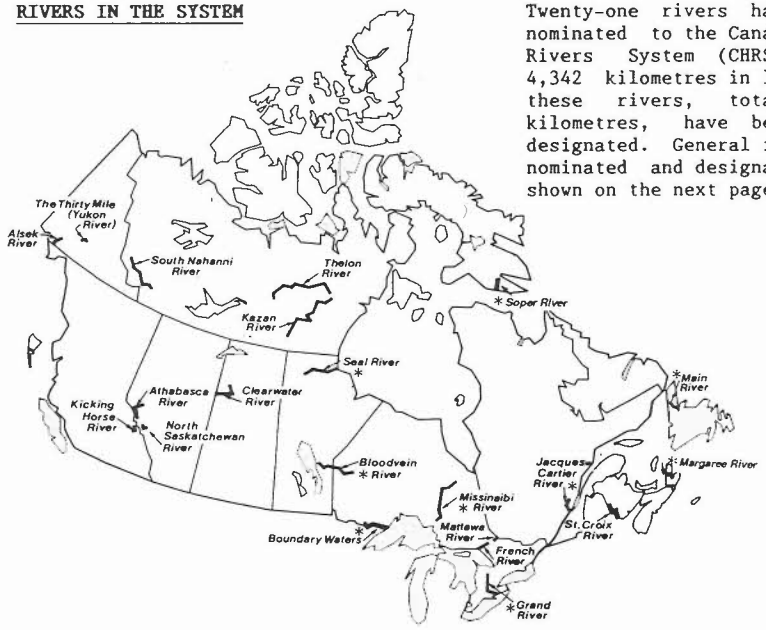
Two Contrasting Rivers Nominated

The breadth of the Canadian Heritage Rivers System was clearly illustrated at the 16th meeting of the Canadian Heritage Rivers Board held on August 17, 1991. Nominations of two rivers with vastly different physiography, highly contrasting climates, and located in different geographic regions of Canada were reviewed, and accepted, by the Board. In Cape Breton, the Margaree-Lake Ainslie River System was nominated for its outstanding natural heritage and recreational opportunities. On Baffin Island, the Soper River was nominated for its outstanding natural and human heritage, and recreational potential. Apart from being located on islands and being roughly the same length, 120 km and 108 km respectively, these two rivers have little in common.

In other activities at the meeting, the Board received advance copies of the 1992 Canadian Heritage Rivers Calendar. This is a joint production with the Canadian Recreational Canoe Association. Copies will be available in most bookstores this fall, with proceeds being used by the Association to fund river cleanups. The Board also approved in principle a Memorandum of Understanding with Girl Guides of Canada for joint monitoring of certain Canadian Heritage Rivers, to be in effect in early 1992. The Board meeting also almost coincided with the first issue, on August 20, of a four year series of postage stamps commemorating Canada's river heritage.

RIVERS IN THE SYSTEM

Twenty-one rivers have now been nominated to the Canadian Heritage Rivers System (CHRS) totalling 4,342 kilometres in length. 13 of these rivers, totalling 2,597 kilometres, have been formally designated. General information on nominated and designated rivers is shown on the next page.



*NOMINATION ACCEPTED
(not yet designated)

NOTE: Only rivers in national parks are eligible for heritage river status in Alberta and British Columbia.

THE CANADIAN HERITAGE RIVERS SYSTEM, SEPTEMBER 1991

DESIGNATED RIVERS

River	Province (Park[1])	Designation Date	Length of Section[2]
French	Ontario (French River P.P.)	Feb. 1986	110 km
Alsek	Yukon (Kluane N.P. Reserve)	Feb. 1986	90 km
Clearwater	Saskatchewan (Clearwater R. P.P.)	June 1986	187 km
South Nahanni	NWT (Nahanni N.P. Reserve)	Jan. 1987	300 km
Bloodvein[3]	Manitoba (Atikaki P.P.)	June 1987	200 km
Mattawa	Ontario (Mattawa River P.P. and Samuel de Champlain P.P.)	Jan. 1988	33 km
Athabasca	Alberta (Jasper N.P.)	Jan. 1989	168 km
North Saskatchewan	Alberta (Banff N.P.)	Jan. 1989	49 km
Kicking Horse	British Columbia (Yoho N.P.)	Jan. 1989	67 km
Thelon	Northwest Territories	July 1990	545 km
Kazan	Northwest Territories	July 1990	615 km
St. Croix	New Brunswick	Jan. 1991	185 km
Yukon (30 Mile)	Yukon	Jan. 1991	48 km
		Total	2,597 km

NOMINATED RIVERS

River	Province (Park[1])	Anticipated Designation	Length of Section[2]
Jacques Cartier	Quebec (Jacques Cartier P.P.[4])	Jan. 1992	128 km
Missinaibi	Ontario (Missinaibi P.P.)	Jan. 1992	426 km
Bloodvein[3]	Ontario (Woodland Caribou P.P.)	Jan. 1992	106 km
Boundary Waters	Ontario (LaVerendrye/Quetico P.P.)	Jan. 1992	250 km
Soper	NWT (Prop. Katannilik Terr. Park)	Jan. 1992	108 km
Seal	Manitoba	June 1992	260 km
Grand	Ontario	Jan. 1993	290 km
Main	Newfoundland	Jan. 1993	57 km
Margaree	Nova Scotia	Aug. 1994	120 km
		Total	1,745 km

1 N.P. denotes national park, P.P. provincial park.
2 Length of main stem of river, excluding nominated tributaries.
3 The Bloodvein River was nominated in two parts by Manitoba and Ontario.
4 Only the upper section is located in the park.

WETSUITS AND DRYSUITS

Your wetsuit or drysuit is your most vital piece of safety gear in the spring next to your PFD. As safety standards become much more exacting, more trip leaders are requiring you wear a drysuit or wetsuit for spring whitewater. No one wants to interrupt a trip to take someone off the river because of hypothermia, which is the number one risk in the spring. Exposure to cold water results in a significant loss of co-ordination and judgement, two qualities vital in whitewater canoeing. Wetsuits and drysuits reduce that loss but do not eliminate it. Watch your companions after they tip as they are very likely to upset again, due to this loss of judgement.

The purpose of our safety equipment is to reduce risk when the *inevitable capsize* occurs. A dangerous lottery begins when you are out of the canoe in the cold water. Losers count on luck to keep them safe. Improve your odds with the right equipment. Anyone not wearing a wetsuit can become a hazard to others in the group as their judgement deteriorates when they are immersed in icewater. Many rescues frequently end up involving the rescuer.

Wetsuits are made from 2-to-5-mm-thick neoprene closed-cell sponge, which does not absorb water and is a poor conductor of heat. Most of your body heat will remain in the vital trunk area during immersion in ice cold water. The temperature of the wetsuit quickly reaches that of the surrounding water, so even in a wetsuit icewater is physically painful. The fabric of the wetsuit will be wet when you are rescued so you should have more clothes available, especially if there is wind.

Drysuits keep you dry! Think of them as giant rubber and nylon sealed bags. They have soft rubber gaskets at wrists, ankles, and neck to keep water out and sweat in. You wear regular clothes underneath, polypropylene is best. Some drysuits are two pieces with gaskets at the waist; others have waterproof zippers which allow you to climb in. If you are swimming you still lose heat and feel the cold, but you don't need to dry off or put on more clothes later. You also stay dry and warm in the legs if you are shipping water going through standing waves or surfing. If it is raining you will be totally dry, and if it is windy you will not be cold.

Wetsuits are less effective than drysuits. They are easier to put on than a drysuit and easier to get out of when nature calls. Wetsuits can be washed very easily in the laundry. They are most popular in the "farmer John" overall style. A careful shopper can find them on sale for $75. Also available is a wet coat which can go over the farmer John.

Getting into a drysuit is easily a 15-minute task. Try to avoid liquid intake when you wear a drysuit. They will smell quite ripe after a few wearings because of the lack of ventilation. Drysuits are hard to find on sale and cost about $350. Fit should be generous as you wear clothes underneath. Finding a good ladies fit with hips is difficult as only mens sizes are stocked. Look for nylon cuffs to protect the soft rubber gaskets but the gaskets can be easily replaced when they wear out. Caution: some retailers call wetsuits drysuits; but drysuits are made of nylon with gaskets.

Drysuits give you better protection; so if you start paddling in March you should have a drysuit. Unfortunately on a hot day you'll bake. Buy a best quality drysuit and a cheap wetsuit to wear when the water is warmer. On a cold day in June or September it's nice to have the wetsuit to keep your trunk warm if you have to swim. If you are on a tight budget, supplement your wetsuit with lots of warm windproof dry clothes and hats packed in double plastic garbage bags. But if you turn out to paddle in early spring without either a drysuit or a wetsuit, don't be surprised if you get a "cold" welcome from the rest of the group.

John Hackert

Bird watching at the Fall Meeting. Photo: Glenn Spence

CONSERVATION

Coming Soon, to a River Near You . . .

SMALL HYDRO

Richard Culpeper

Almost 500 potential small hydro sites have been identified by Ontario Hydro. Over 149 sites on 74 rivers are currently being developed. The University/Dog's Denison Falls, the Temagami's Island Falls/Ragged Chute, and most of the Aux Sables' falls are on this list.

What is small hydro, how are small hydro projects approved, and how does this affect us?

WHAT IS SMALL HYDRO?

Small hydro projects are privately owned (non-utility) dams with generators that produce electricity which is sold to Ontario Hydro.

The dams tend to be about one to three metres high, and their head ponds usually flood one or two kilometres of river. The projects are most often small impoundment or run-of-river, which means that they hold back water to the spring high water mark and let the rest flow through. A typical site might have a maximum output of 5 MW in high water and shutdown periods in low water. A similar Ontario Hydro project is the Lakefield Generating Station, which produces 0.9 MW.

Let's put this in perspective. Darlington Nuclear Generating Station near Bowmanville can produce 3,524 MW and serve a massive urban region of three million people. The Des Joachims Hydraulic Generation Station on the Ottawa River can produce 370 MW and serve a large city of 315,000 people. The Trenton Hydraulic Generating Station can produce 0.2 MW and serve a village of 170 people.

There are 40 existing small hydro projects that cumulatively produce 91 MW. Small hydro projects in Ontario are expected to deliver 251 MW in the year 2000. Essentially, all the existing and proposed small hydro projects combined could serve a good sized city, but would have less output than a single large hydro station, and would be dwarfed by a nuclear station.

HOW ARE SMALL HYDRO PROJECTS APPROVED?

Small hydro developments *do not* have to go through Ministry of Environment (MOE) Environmental Assessments (EAs) the way that all Ontario Hydro dams do. They go through less thorough Ministry of Natural Resources (MNR) Environmental Reviews (ERs).

Ministry of Natural Resources Environmental Reviews look at the environmental problems that a project might cause, and then try to find solutions. The focus is on the biological environment, so recreational value is not looked at in depth. The ERs only look at individual projects, not at the effects of entire series of projects on one river or watershed.

In the ER process, notification is *not* normally given at the regional level. The public *cannot* customarily look at the studies upon which decisions are based. Limited comments are solicited after it is too late to offer any viable compromises. Most of the review process takes place behind closed doors between the developer and the MNR.

If the public complains loudly enough about a project, the MNR will pass the ER decision along to the MOE, who will then either pass it back or make it go through a Full EA.

Ministry of Environment EAs are formal proceedings which guarantee that the public has input into the decision-making process, and that culture is considered as part of the environment. Specifically, the public and interested groups are adequately notified of what is developing, can look at environmental studies, and have their comments carefully considered before decisions are made. It provides as equitable a decision-making process as possible.

Only one small hydro project, on the Kaministikwia River near Thunder Bay, has been pushed beyond an ER into a Full EA. Rather than go through an EA, the proponent has chosen to halt development. The other small hydro developments have not been pushed to Full EAs.

Because of their thoroughness, EAs are expensive. Sometimes prohibitive. In order to streamline the EA process, the Water Power Association is proposing a Class EA. If it is accepted, the ER process will replaced by a Class EA process. If a project meets the Class EA requirements, then it will receive approval. A great deal depends on the requirements set out in the Class EA. The Class EA proposed by the Water Power Association says that new dams on pristine sites should not have to go through Full EAs.

HOW DOES THIS AFFECT PADDLERS?

The Class EA proposed by the Water Power Association will be disastrous to paddlers unless major modifications are made before it is accepted. The most important issue is the paddlers' wish for Full EAs for all new projects on pristine sites.

The proposed Class EA sets out three categories: a) pre-approved activities, such as general maintenance; b) major alterations, which would be announced only to the local residents and appropriate ministries, would not require formal documentation, and would not go through the entire Class EA process; and c) new developments and major expansions, which would go through the entire Class EA process, but not a Full EA.

Paddlers would like to see only two categories, Class EA and Full EA. General maintenance should not go through the EA process. Major alterations and expansions should go through the Class EA process and should require full documentation. The Class EA process should include public access to all documentation, adequate notification, and reasonable response periods. This way, paddlers would have the opportunity to examine and comment on proposals. New developments should go through Full EAs, which are designed by the MOE to be the most thorough forums in which to address environmental concerns, including biological, safety, cultural, and recreational considerations.

Paddlers would love to see existing sites brought up to their full potential before new sites are developed. After all,

the energy must come from somewhere, and fossil fuel or nuclear generation is no better. What is needed is a balance between energy needs and biological and cultural environmental needs. There are so many proposed new sites, and so few environmentally active paddlers, that most new developments would go through without opposition. For most projects, a Full EA would not be any more expensive than the current ER process.

It is the few, special sites for which paddlers need the thoroughness of a Full EA. These cases would cost the developers more, for there would be a stronger fight. Full EAs for all pristine sites would not financially prohibit the development of new sites; Full EAs would simply allow the public to try to preserve the occasional, special site. If developers made an effort to learn which sites are special to paddlers, they could avoid the entire process by choosing to develop elsewhere.

A Full EA guarantees reasonable public involvement, but why such a fuss about notification and access? Under the existing ER process, paddling clubs and individuals in a region are not notified that dams are proposed for rivers that are special to them. Whitewater paddlers find out that their favorite drops are non-navigable and suitable for dams. Wilderness paddlers find that garbage dump sites are built along small hydro access roads. The best example of poor notification is the announcement for the public information and comment sessions of the proposed Class EA, which was placed in small print advertisements on the Saturday of the long weekend immediately preceding the sessions. Public consultation can only happen if the public knows when, where, and how to present their concerns. Anything less is tokenism.

If paddlers are lucky enough to learn about a dam before it is approved, they are not permitted to look at the studies upon which the proposal is based, which means that they cannot question the accuracy of the studies or the validity of the conclusions. The best example of this is the River Aux Sables, which is a heat-sensitive trout fishery. The MNR Manager publicly said that environmental studies would be available to the public, but the dam builder refused to release them. This took a six-month Freedom of Information Act battle to rectify. Why was it so important to see the studies? The same MNR manager said that he thought the trout would be healthy in water warmed by head ponds because he had not seen any dead trout in a previously warm summer. He did not know that dead trout sink! Sometimes the paddlers' professional freshwater marine biologists, hydrogeologists, and engineers can offer insights that the MNR generalists might overlook. After all, these studies are done by consultants hired by the developers.

If you are worried about small hydro, get in touch with the WCA or ORCA/Canoe Ontario conservation groups. They are tremendously under-staffed, so you won't hear much from them, but they would like to know what you are up to. Any effort you make will be greatly appreciated. If you are concerned about a specific drop or river, write the Minister of Natural Resources, Queen's Park, Toronto, M7A 1W3. Or you could adopt a river. You will be asked to write the occasional letter or to attend a public information session, so that you can find out for all of us what is happening on your river and help us respond accordingly. Remember, public consultation means **you**.

SMALL HYDRO PROJECTS

Amable du Fond — Arrow — Aux Sables — Abitibi — Allanwater — Atikwa — Berens — Big Creek — Black (Abitibi) — Blackwater — Blanche — Blind — Boland — Chiniguchi — Credit — Crowe — Englehart — English — Flanagan — Fredrickhouse — French — Goulais — Groundhog — Gull — Hollow — Irondale — Kabinakagami — Kagawong — Kagiano — Kaministikwia — Kamiscotia — Kapuskasing — Kawashegamuk — Larder — Little Black — Little White — Magnetawan — Magpie — Masima — Mattagami — Mattawa — McCarthy Creek — Mississagi — Moira — Montreal — Nagagami — Namakan — Namawaminiken — Nettogami — Onaping — Opastika — Opimka Creek — Pashkokogan — Roaring — Seine — Serpent — Severn — Sharpe Creek — Shekak — Shikwamaka — Sister — South — Sturgeon — Sucker — Temagami — Trout Lake — University/Dog — Vermillion — Wabigoon — Wabinosh — Wahsenasing — White — Windigo — Wolf

For more than a year, Stephen Crouch has given much of his time trying to increase the members' awareness of canoeing-related issues the WCA has a special interest in. That he has been only partly successful is more than anything else a reflection on the seemingly widespread apathy in the club towards conservation, by no means on Stephen himself. On the contrary, he has repeatedly tried to get people to help him in his conservation activities. Some members have indeed responded to his call and dedicated their time and efforts to this important work, but overall the response has been disappointing.

However, in the relatively short time that Stephen has been active, he has performed a tremendous amount of work for the WCA and we are grateful for everything he has done and the example he has set. For personal reasons he will soon leave Canada for Great Britain so that his relatively short but inspiring career in the WCA has now come to an end. John Hackert has offered to take Stephen's place; anybody interested in joining the Conservation Committee or in submitting useful ideas can find his address and phone number on the last page of each issue of our journal. Thanks, Stephen. Welcome, John.

Editor

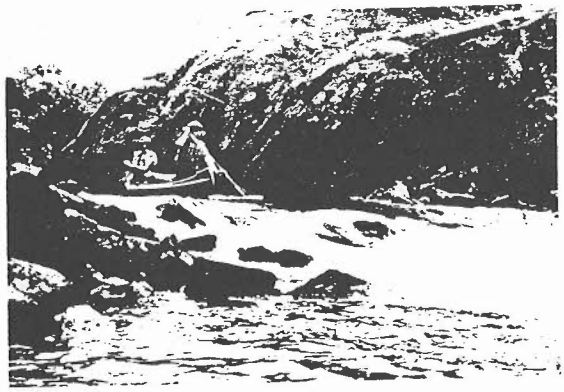
AUX SABLES DUMP The Cameron Falls small hydro access road may soon lead to not only a dam, but also a municipal dump for a neighboring township. For some reason, the Ministry of Environment does not want to let our hydrogeologist look at the hydrogeological study, so there may be some problems with ground water seeping into the river that need to be monitored. Same old secrecy song. In

any event, rock on with *I've got vermin in my campsite, and I don't know what to do with them! Vermin in my campsite, vermin in my campsite!*

MISSISSAGI RIVER DAM The Patten Post section of the Mississagi River is being studied for a new major hydro project. This is not part of Ontario Hydro's Demand Supply Plan. It is part of the NDP government's package to economically help Eliot Lake, which has lost its Ontario Hydro uranium contracts.

TEMAGAMI RIVER WATER LEVELS The lower Temagami River is one of the few wilderness rivers 'weekendable' from Toronto with superb whitewater runs in low water, except when Ontario Hydro decides to turn off the taps entirely, stranding paddlers and fishermen up to their armpits in loon leavings. The Sturgeon-Nipissing-French Water Management Advisory Board has decided that in the future there should be a minimum flow to guarantee navigability. Sun 'n Surf!

RIVER AUX SABLES RENDEZVOUS If you want a first-hand look at one of Ontario's most threatened rivers, come out to the River Aux Sables Rendezvous, near Massey, on Victoria Day Weekend, 16, 17, 18 May 1992. The river offers beautiful wilderness and outstanding whitewater. Unfortunately, it has one new dam and is scheduled for five more. More information in the Spring 1992 issue of *Nastawgan*.



ELECTRICITY CONSERVATION

In his article on the Spanish River (*Nastawgan*, Autumn 1991, page 8), which brought memories of my own trip some years ago, John Hackert worries about the possibility that, in a search for more electrical capacity, Ontario Hydro will either dam the Spanish River or purchase power from independent power producers who have dammed it — in either case, bypassing environmental assessment procedures.

As Hackert notes, the Spanish is a special case because water rights are already owned by INCO. However, his point is general and really applies to any whitewater river. He is right to be worried. There is no reason why micro-hydro or any other alternative, no matter how renewable, should be exempt from environmental assessment. And he is also right that public pressure can reverse this situation and save the Spanish as well as other rivers — witness Hydro's withdrawal of plans to put dams on a number of north-flowing rivers in the face of opposition from Indian groups and communities.

I would like to correct on impression that John Hackert may have left when he suggests that, because of the "cancellation (*sic*; actually a moratorium) of Ontario's nuclear program . . . " Ontario may "run out of power in ten years." We may, but only if we neglect the enormous opportunities for electricity conservation in the province, opportunities that dwarfs those for new generation. Conservation compares favorably with any type of generation on both economic and environmental grounds — and provides more jobs to boot.

I have written before to *Nastawgan* to emphasize that wilderness supporters do not need to choose between nuclear and fossil fuels as a source for Ontario's electrical capacity. However, I am now in a position to put my vote where my analysis has been. As part of its new-broom approach, Premier Bob Rae has appointed me to the Board of Directors of Hydro, and presumably expects me to make the case for a much stronger conservation approach. He has also appointed Adele Hurley, Executive Director of the Acid Rain Coalition, and Anne Noonan, a Cree woman who is both a lawyer and an environmental activist. The task before us is as big as it is clear. Let us all wish one another luck.

David B. Brooks

PS. I cannot quite let readers of *Nastawgan* off the hook, either. The ultimate problem with electricity is not generation but consumption. Each of us should ask herself or himself whether our personal electricity use has increased this year. How many new appliances/toys/tools do we have this year that we did not last year? Did you consider, for example, planting trees instead of adding an air-conditioner? When you bought something, did you check to see that you got the most electrically-efficient models available? Even if it cost more? Residential use of electricity *is not* negligible and it *is* growing. You too have a role to play. And not just at home but at the office, in church, at school, etc.

NEW HYDRO TRANSMISSION LINE

At a public meeting held last August at Alban (near the French River), Ontario Hydro announced they were planning a new transmission line from Sudbury to Toronto. Ontario Hydro indicated they did not know the exact location of the line, but it would cross the French River somewhere between its present location and the Five Mile Rapids, five miles and 13 miles east of Highway 69 respectively. They distributed a newsletter which showed the study area to be paralleling to the east the existing line in an ever-widening swatch until it reached the Toronto/Pickering/Darlington area. This new transmission line will affect all the rivers running into Georgian Bay from the east, including the French, Pickerel, Key, Still, Magnetawan, and Gibson rivers.

The reasoning given by Ontario Hydro at the meeting for not putting a new transmission line adjacent to the existing two lines is a traditional hydro engineer's argument " . . . in case of a local disaster, e.g. a tornado, transmission

would be lost in all three lines."

An Ontario Hydro official, John Shewchuk, informed me that Ontario Hydro was required to conduct a full Environmental Assessment of the new route. They would be looking at routes west as well as east of Highway 69, and they were even considering relocating the existing two lines west of Highway 69 where, he understood, they would have less impact on the river. The most assuaging news he came up with was that they were also considering putting all transmission lines underwater where they crossed the important French River Heritage Waterway Park.

In my opinion, the new line will have the least impact if it runs adjacent to the existing two lines. In the case of a local disaster Toronto can still get power through the grid system. If the existing lines are moved it will be at great financial cost as well as repeat the inescapable environmental damage associated with installing transmission lines, also creating yet another all terrain vehicle access through virgin territory. I was astounded by Mr. Shewchuk's comment that Ontario Hydro is considering putting the new line, and perhaps the old lines, underwater. In the past, Ontario Hydro has insisted submarine lines were too expensive and lost too much power. If Ontario Hydro is indeed sincerely considering putting the lines underwater when they pass over navigable water, then they are to be encouraged as this would greatly negate any additional environmental impact a new transmission line would create.

In an attempt to organize a protest by people on the French River I have started a petition which states: "We want the new transmission line to be parallel and adjacent to the existing transmission lines and be buried underground and underwater where it crosses the French River Heritage Waterway Park." (The park reaches 200 metres back from the shoreline.)

The time to let Ontario Hydro know your opinion is now, before their planners determine the specific route for a second transmission corridor. Write to the Chairman and tell him your opinion: Mark Allison, Chair of the Board, Ontario Hydro, 700 University Avenue, Toronto, Ontario, M5G 1N6. If you want more information, contact: Jim Shewchuk, Senior Public Relations Officer, same address.

Jane Burgess

REVIEW

THE BASIC ESSENTIALS OF HYPOTHERMIA by William W. Forgey MD, illustrations by Eric Gossler, published by ICS BOOKS Inc., Merrillville, Indiana, 1991, 68 pages.
Reviewed by Bill King MD

Hot on the heels of the review published in the Autumn issue of *Nastawgan*, Dr. Bill Forgey and the "Basic Essentials" people have been at it again, this time with a discussion of hypothermia. In contrast to his works on wilderness first aid, I have not read the longer text published by the same author in 1985 entitled, "Hypothermia." The present text is described in the accompanying press release as a "concise version, presented in an easily digestible format," but I find it hard to imagine any but the most serious student of hypothermia wanting more information than is presented here.

I also have a few reservations about the "easily digestible" description. One of the outstanding virtues of Dr. Forgey's works on first aid, in my opinion, is that they are simple, straightforward, and accessible without difficulty to the lay reader. Not so here – there is a lot of serious science in this book. Bearing in mind that I have a background in medical terminology and am already fairly well-versed in the subject, I must confess that I found myself nodding over sections of this book (admittedly reading it at the end of a particularly long day!). That is not to say that the information isn't important or the recommendations sound; just don't expect this to rival a mystery novel for light reading.

Beginning with an overview of cold-induced illnesses the book then deals in more detail with the physics of heat loss, nutrition and metabolism, muscular and non-muscular heat production, and the body's mechanisms for reducing heat loss. Having dealt with the "basics," the clinical syndromes are discussed under three broad headings, "chronic hypothermia" (the kind which results insidiously from a combination of fatigue, cold and wet), "acute hypothermia" (the kind which results from immersion in cold water), and "frostbite and other cold related injuries." The discussions are authoritative and comprehensive and the recommendations on recognition, avoidance, and treatment include everything which I would consider important. Sometimes, as for example in the discussion of warm peritoneal dialysis, it seems to me that Dr. Forgey temporarily loses sight of the target audience.

I would like to stress that anyone who wades through this book will have enhanced their own safety and improved their value as a member of any party which ventures into a potential hypothermia situation (and this may include virtually any wilderness outing).

If I may be permitted one other criticism, I hope that if this book goes into reprinting it will be subjected to tighter editing. The grammar errors (e.g. split infinitives) and misuse of words (e.g. flounder for founder) are a minor annoyance to the fastidious reader.

WCA TRIPS

18-19 January **WINTER CAMPING IN ALGONQUIN PARK**

Howard Sayles, (416) 921-5321; book before 11 January.

Winter camping in a warm tent with a wood-burning stove. Long red underwear and winter sleeping bag a must. Precise location and snowshoeing routes to be determined by consensus. Limit four tenters.

1-2 February **LOBSTER FESTIVAL IN ALGONQUIN PARK**

Jay Nelson, (416) 927-5009 (w) or (519) 855-6749 (h); book before 23 January.

Winter tent with wood stove sleeps four lobsters. Cross-country skiing on the Highlands Hiking Trail. Lobsters sledging their own tents are very welcome. Bartlet Lodge on the way in to Cache Lake will be open.

15-16 February **ALGONQUIN SKI TOUR**

Karl Schimek, (705) 487-0172; book before 7 February.

An overnight ski trip on the Western Uplands Trail in Algonquin Park. Total distance about 30 kilometres. Participants should be in condition to ski two full day with a backpack. Limit four fit skiers.

15-16 February **WINTER CAMPING IN ALGONQUIN**

Howard Sayles, (416) 921-5321; book before 8 February.

Winter camping in organizer's warm tent with a wood-burning stove. Winter sleeping bag a must. Precise location and snowshoeing routes to be determined by consensus. Limit four tenters. Long red underwear optional.

22 February **LOWER CREDIT**

John Kirby, (416) 276-1718; book before 15 February.

Beat the fishermen to the river. Believe it or not, the Credit could well be runnable at this early date. Expert paddlers with full cold weather gear only for this trip; if the river is open it will be in full flood. Date may change according to conditions. Limit four canoes.

22-23 February **MINNISING SKI TRAIL**

John Winters, (705) 382-2057; book before 15 February.

An overnight ski camping trip on the Minnising Ski Trail. The trail is groomed and this trip provides a good opportunity for intermediate skiers to get some camping experience. Limit six.

14 March **OAKVILLE CREEK**

John Kirby, (416) 276-1718; book before 7 March.

Oakville Creek is narrow and can have fast water. Paddlers need to be experienced in fast-moving cold water and must be able to manoeuvre around possible sweepers. Experienced paddlers in cold weather clothing. Limit five boats.

15-16 March **WINTER CAMPING IN THE PARK**

Howard Sayles, (416) 921-5321; book before 8 March.

A warm place in the cold snow, tent with wood stove, winter sleeping bag essential. Snowshoeing and location to be decided.

15 March **LOWER CREDIT SEASON OPENER**

Steve Lukasko, (416) 276-8285; book before 7 March.

Experienced cold-weather paddlers will welcome the opportunity to paddle the thaw. Intermediate to advanced paddlers prepared for the season. Limit five boats.

22 March **UPPER CREDIT RIVER**

Mike Graham-Smith, (416) 877-7829; book before 15 March.

The upper Credit with its many swifts, gentle rapids, and canoe-grabbing rocks is a refreshing spring paddle. Suitable for novice paddlers with some moving water experience. Limit six canoes.

22 March **IRVINE CREEK/GRAND RIVER**

Jeff Lane, (519) 837-3815; book before 14 March.

Irvine Creek flows into the "Gorge" just downstream from our normal put-in. The creek runs through its own boulder-strewn gorge. With high water this trip should prove extremely challenging. Restricted to advanced paddlers with properly equipped boats. Participants must be dressed for cold, wet canoeing. Limit six canoes.

29 March **OAKVILLE CREEK**

Bill Ness, (416) 321-3005; book before 22 March.

A narrow stream that can have fast current and many swifts. There may be sweepers to avoid and paddlers must be able to manoeuvre safely in fast water. Limit six canoes.

Flatwater course, May'88 Photo by Bill Ness

5 April **GRAND RIVER**

Dave Sharp, (519) 621-5599; book before 29 March.

A gentle flatwater trip starting at Cambridge and, depending on water levels, ending at Paris or Brantford. An excellent trip for novice moving water paddlers. Limit six canoes.

5 April **IRVINE CREEK/GRAND RIVER**

Jeff Lane, (519) 837-3815; book before 28 March.

A repeat of the previous trip. With enough spring runoff these waters will still be a challenge. Hoping for pleasant weather but be prepared for less than perfect. Limit eight canoes with expert paddlers equipped for cold whitewater.

12 April **SALMON AND MOIRA RIVERS**

Glenn Spence, (613) 475-4176, book before 4 April.

Just north of Bellville these two rivers offer exciting whitewater and fine scenery. The Salmon is the more gentle one but has some ledges to practice your skills. The Moira has larger rapids, possibly up to class 3. This is one of Southern Ontario's finest spring rivers. Intermediate paddlers welcome. Limit six canoes.

25-26 April **NORTH KAWARTHAS**

Will Bartlett, (519) 268-3701; book before 14 April.

A leisurely lake loop suitable for novices with cold water experience. Be prepared to portage and enjoy the spring scenery before the bugs emerge. Limit three boats; solo paddlers welcome.

PRODUCTS AND SERVICES

This PRODUCTS AND SERVICES section is available, free of charge and on a first-come, first-serve basis, to members as well as non-members for their announcements regarding items for sale, special products, discounts, services, courses, etc. Contact the editor if more information is required.

DISCOUNTS ON TRIPPING SUPPLIES WCA members who present a membership card will receive a 10 percent discount on many non-sale times at:

ABC Sports, 552 Yonge Street, Toronto,
Algonquin Outfitters, RR#1, Oxtongue Lake, Dwight, Ontario,
Rockwood Outfitters, 669 Speedvale Ave. West, Guelph, Ontario,
Suntrail Outfitters, 100 Spence Str. (Hwy 70), Hepworth, Ontario.

Members should check at each store to find out what items are discounted.

WANAPITEI WILDERNESS CENTRE Experience northern Canada by canoe. Since 1931, Wanapitei has been running quality canoe trips in the Canadian North. Trips and canoe clinics vary in length from one day to several weeks and there are options for all levels of paddlers from novice to expert. Trips are offered throughout Canada, from Quebec to the NWT. From our base in Temagami, Ontario, we also offer complete outfitting services as well as a unique canoe trip camp for youth ages 9-18. For a free brochure, contact Wanapitei, 393 Water St. #14, Peterborough, Ontario K9H 3L7; phone (705) 745-8314.

WHITE SQUALL Join us in exploring the 30,000 islands of Georgian Bay by sea kayak. We teach carefully and with a smile. Our shop has paddling and trip gear that works, fine folk music, friendly chickens, and the best selection of canoes and kayaks on the Bay. White Squall, RR#1, Nobel, Ontario P0G 1G0; phone (705) 342-5324.

NORTHERN BOOKS Used, rare, reprinted, and select new books with northern and/or wilderness focus; emphasis on canoeing, exploration, fur trade, Arctic anthropology, etc. The new catalog #6 with more than 650 titles is now available. Contact: Northern Books, P.O. Box 211, Station P, Toronto, M5S 2S7; phone (416) 531-8873.

RAINBOW ADVENTURES Canoe adventurers wanted; no experience necessary. Come share our passion and desire for the great outdoors and wild rivers. We offer custom canoe trips on the Dumoine, Petawawa, and Madawaska rivers. Total or partial outfitting can be arranged. You have total control over the itinerary. Guide and instructional services start at $250 per day, plus expenses. Other trips and clinics are available, including kayaking and rafting on the Ottawa River. Contact: Rainbow Adventures, Palmer Rapids, Ontario, K0J 2E0; tel. (613) 758-2244.

WANTED Optimus IIIB stove and Bendonn aluminum Dutch oven. Write: Scott Mac Adam, 11330 Takilma Road, Cave Junction, OR. 97523, USA, or call collect (503) 592-2669.

WANTED Please, can anyone tell me where I can buy a collapsible canoe? Claire Muller, RR# 3, Lakefield, ON., K0L 2H0, phone (705) 652-7181.

YUKON PADDLE Float plane or helicopter access from the untouched Yukon Territory. Consider combination hiking and canoeing trips designed to suit your abilities. Explore the Cirque of the Unclimbables on the Nahanni River. Moosepond / Little Nahanni specialized combination trips offer 12 days of Canada's best whitewater. Selfguided economical outfitting or luxury guided tours from our comfortable lodge. 25 Claude Avenue, Toronto, ON., M6R 2T5; phone (416) 533-6301.

CELEBRATION OF THE WILDERNESS During the weekend of 8-9 February, 1992, the Town of Deep River will be hosting "Celebration of the Wilderness." Saturday's events will take place in the High School Auditorium and will consist of talks on the Queen Charlotte Islands, the Mountain, Yukon, and Kuujjua rivers, the tributaries of the Dumoine River, Grey Owl and the Beaver People, and other interesting subjects. The evening will be optional and will consist of a buffet dinner and refreshments at the Eddy Inn. There will be story telling with some surprise story tellers. Sunday will consist of ski tours on some of the 60 km of trails through the Petawawa Research Forest. A tent campsite will be set up at the Shanty with hot refreshments, campfire, and live entertainment. Guides are available as well as tours of various lengths. Deep River is located on the Ottawa River and Hwy. 17 between North Bay and Ottawa. Daily commercial flights from Toronto are available. For information regarding accommodation and costs contact Don Smith, Box 1115, Deep River, ON., K0J 1P0, phone (613) 584-2577.

ALGONQUIN NORDIC Join Joan Etheridge for the eighth annual weekend of cross-country skiing in southeastern Algonquin Park. Based in a comfortable lodge we will ski hilly terrain in one of the major deer yards in Ontario. Eat six home-cooked hearty meals; relax in hot tub or sauna. From 28 February to 1 March; cost $125 per person plus taxes. Call Joan in Oakville at (416) 825-4061 before 28 January; spaces limited.

CALENDARS Two new 1992 calendars that are of special interest to canoeist are available from the Canadian Recreational Canoeing Association. They are the Canadian Heritage Rivers Calendar, which features thirteen of Canada's most spectacular Heritage Rivers, and Paul Mason's beloved Canoetoon Calendar. For information on how to place your order, please contact the CRCA, 1029 Hyde Park Road, Suite 5, Hyde Park, ON., N0M 1Z0; phone (519) 473-2109.

MINDEN WILD WATER PRESERVE is now open for winter use, offering marvellous opportunities for camping, skiing, and snowshoeing by individuals and groups at reasonable cost. For information on rates and dates, please contact Mike Twitchin at (416) 742-5232.

CANOETOONS
PAUL MASON

Where it is ...

. . . in this issue

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Wilderness Canoe Association membership application

I enclose a cheque for $25 (single) or $35 (family) for membership in the *Wilderness Canoe Association*. I understand that this gives me/us the opportunity to participate in WCA trips and activities, and entitles me/us to receive *Nastawgan* and to vote at meetings of the Association. I also understand that WCA trips may have an element of danger and that the ultimate responsibility for the member's safety is his/her own.

PRINT CLEARLY! Date:_____

Name:_____

Address:_____

_____

City:_____ Prov._____

Postal Code:_____

❑ New member Member # if renewal:_____

❑ Single ❑ Family

Phone Number(s):

(_____)_____(h)

(_____)_____(w)

Ext._____

* This membership is valid for one year.

* Send completed form and cheque, payable to the WILDERNESS CANOE ASSOCIATION, to the membership secretary at the WCA postal address.