

## killarney

Killarney in summer! Although I had camped in the park several times before in the winter, this was to be my first experience here in warmer weather. Sandy Richardson and I planned to spend ten days to two weeks here, backpacking the white quartzite ridges, photographing the country, and generally enjoying the area that had so inspired artists like Franklin Carmichael and A. Y. Jackson.

Thus it was that I found myself setting off along the Silver Peak trail from the George Lake campground in a light drizzle early one afternoon last August. The trail in this area is relatively flat and follows the low country south of the Killarney Ridge of the South La Cloche Range. Having been up on this ridge in the winter, I had been expecting some hard climbing and was pleasantly surprised at the ease with which we could cover the ground. We did puff a bit, however, climbing the rise to Kidney Lake where we put up an early camp and congratulated ourselves on the ease of our escape from the big city. We also had a good look at the ridge along which the trail would lead us tomorrow, and it did look steep!

It was! We no sooner scrambled up, than the trail led back down, and then up again! The continuing rain was a welcome coolant in

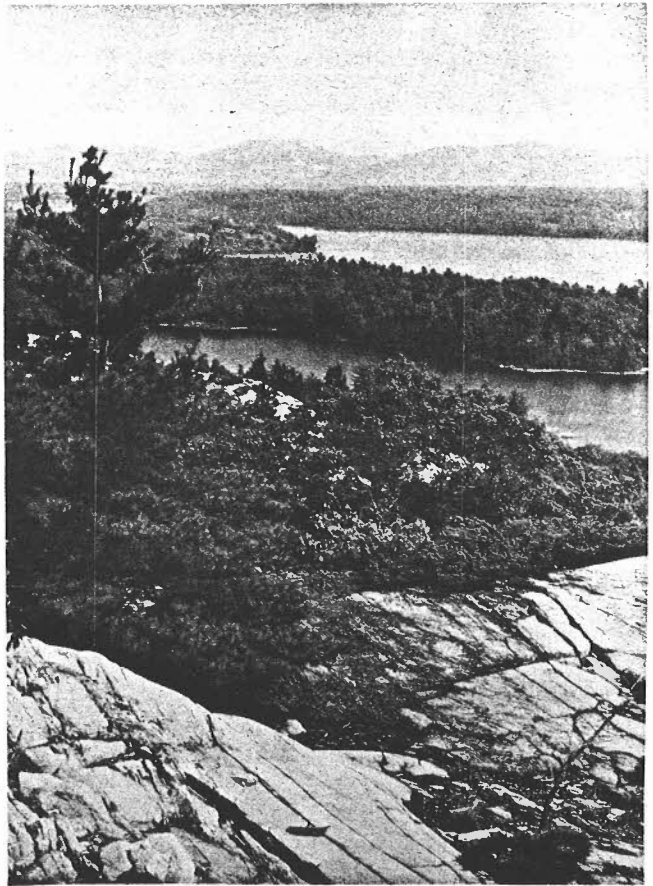
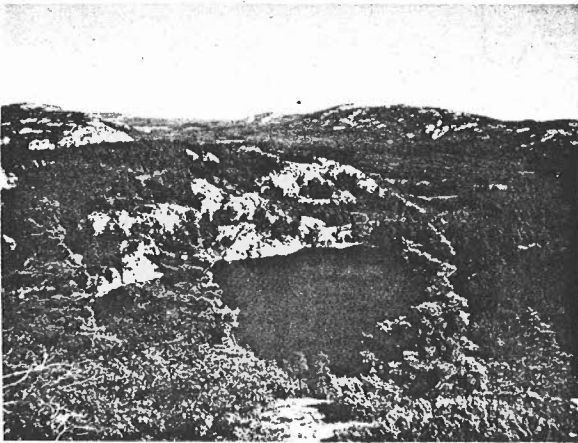
this high country, far above the picturesque Killarney Lakes or any streams, as we lugged our bulging packs over the rocky ridges and through the forested valleys. Our only regret was that we dared not extricate our cameras from their plastic wrappings deep in the packs. However, that evening as we prepared a well earned meal on the southern shore of Bunyrabbit Lake, we were pleased to see the sun bursting out in time to bathe the birch grove across the bay in its golden tones before setting. Needless to say, we got those cameras out in a hurry!

The next day seemed relatively easy, although whether this was caused by the lightening of the packs, the improvement in our conditioning, or the trail itself is hard to say. The trail here curves around the eastern flanks of Silver Peak, which towers about three hundred metres above the surrounding country, and is itself the highest point in the park. However, as the trail began the ascent up the north slope, we turned away and cut across country toward David Lake in the north east corner of the park. That evening we enjoyed a spectacular view of Silver Peak and the Blue Ridge to our south, with the third ridge of the La Cloche Mountains rising behind us.



Our plan was to spend a day here climbing Silver Peak, but to our dismay we had two unpleasant surprises that evening: I had developed blisters on both of my heels, and through an unfortunate misunderstanding Sandy had left his keys at Bunnyrabbit Lake! After much debate it was decided that he would return for them next day without his pack while I would rest the blisters in camp.

Both of us had been looking forward with anticipation to the next phase of the journey: bushwhacking the third ridge. It is difficult to describe the feelings of euphoria we experienced over the next three days as we explored the back ridge, travelling along it from Kirk Lake to the western extremities of Threenarrows Lake. The country there is spectacular and relatively inaccessible, being set back a bit from the regular canoe routes of the park, and not yet having a marked trail through it. We spent our days up on the open, rocky top of the ridge, enjoying the isolation and photographing the little mountain lakes and broad vistas, and only coming down to camp each night.



It was with some regret that we left the ridge to head southward through the low country along the western edge of Threenarrows Lake where we soon picked up the newly cut hiking trail being prepared by the park's employees. It is planned to eventually push this trail all the way across the back ridge to join up with the Silver Peak trail in the eastern part of the park. I suspect, however, that our enjoyment of the area was due in no small part to the current absence of such development.



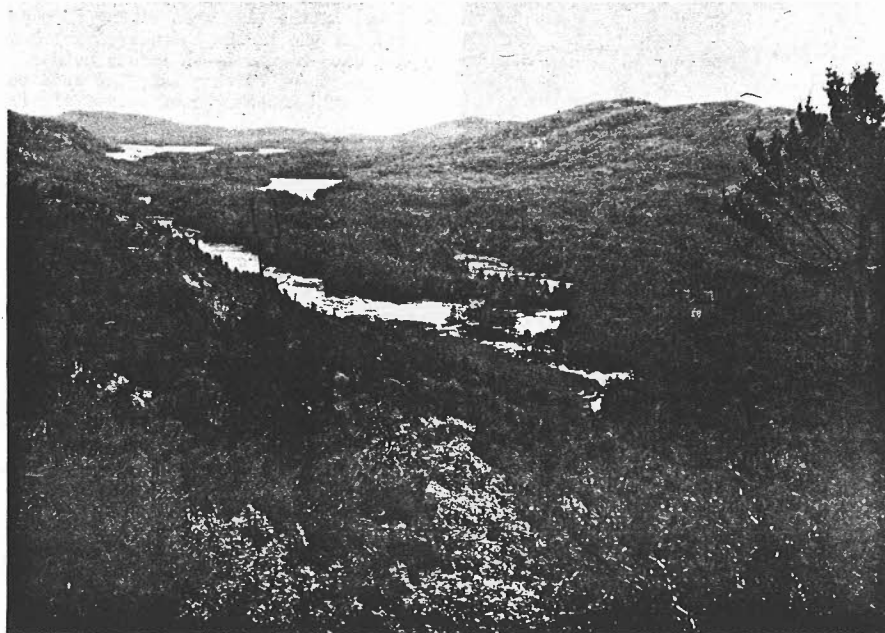
After a day and a half of the relative ease of the low forested country west of Threenarrows Lake we were back at the Blue Ridge, the second of Killarney's three ridges. Here we left the main trail and climbed up to Topaz Lake, nestled high up in the hills above Bale Fine, a fjord-like inlet off Georgian Bay, where we camped for two nights. While we saw many signs of other inhabitants in the area, we both agreed that this was perhaps the most spectacular part of the park we had seen yet. We spent a day just exploring the area and photographing the many beautiful vistas visible from the rocky ledges, and admiring the little jewel-like lakes tucked away up along the ridge.



After coming down off the second ridge, the trail passes a string of scenic little lakes and rocky hills as it works its way back over the Killarney Ridge becoming progressively more heavily used as it approaches the George Lake campground. Perhaps because of the beautiful weather as we came out, we noticed the number of day hikers increasing in inverse proportion to the distance remaining.

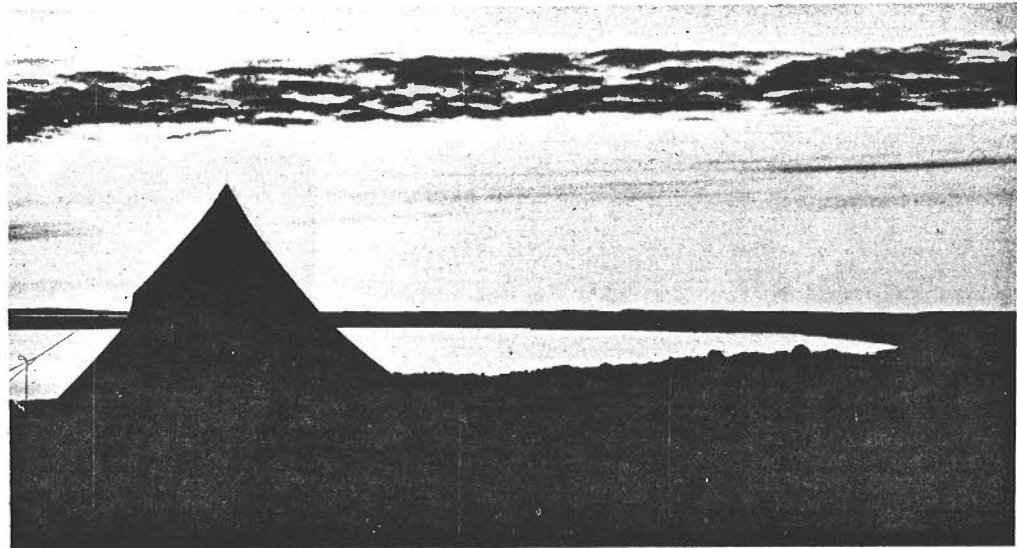
It is perhaps a shame that only a few of them have known the pleasures of sharing a remote mountain lake with a crying loon or enjoying the wonderful stillness of sunrise over an untracked ridge, as Sandy and I have done, but it is reassuring to know that these joys still await those who will pursue them in areas like Killarney Provincial Park.

Story: Cam Salsbury  
Photos: Cam Salsbury & Sandy Richardson



# back river

Ken Ellison



The Back River is located in the north central region of the Northwest Territories flowing approximately 1100 km from Artillery Lake to Chantry Inlet on the Arctic Ocean. The first white man to travel this river was Captain George Back in 1834, who had been commissioned by the English government to search for Capt. Ross who was presumed lost while looking for the Franklin expedition. The expedition was perhaps one of the most successful of its time. Unlike other journeys at that time, Back's trip was without major incident despite a late break-up and bad weather. It was completed in an incredible three months, a round trip of some 2200 km.



Since Back first travelled the river, very few parties have travelled its entire length. The extreme remoteness and isolation is perhaps the most discouraging aspect of travel along the river. The weather unlike that in some parts of the Territories is usually quite stable, with temperatures of 15-20° C being quite common during June, July and August. Bad weather, particularly high winds can move in quite quickly as demonstrated by a July snowstorm we encountered; however this is the exception rather than the rule.

During the summer of 1980 I was afforded the luxury of traveling extensively around the Beechey Lake area on the Back River while working for the Geological Survey of Canada. Our small mobile camp, of four people and three tents, enabled us to travel from Beechey Lake north to the Ellice and Western Rivers approximately 80 km south of Bathurst Inlet on the Arctic coast.

Through my travels the abundance of wildlife, particularly muskox, caribou and wolf, was quite startling. Herds of 500 caribou were common, particularly during the month of August. The muskox concentration was also quite large; several herds of up to 15-20 muskox were spotted. Several times an arctic wolf stumbled through our camp, pausing only to have a look at the strangers within its territory.

The general character of the land is typical of the arctic tundra, rolling hills covered with moss and lichen. In most cases the rivers have cut wide deep valleys which often intersect ancient glacial remnants such as eskers and moraines. This is particularly evident at the south end of Beechey Lake and near the Baille River, where there is an abundance of sand dunes and eskers. South of Beechey Lake towards Casey Lake the land is much more rugged. Granite outcrops and endless hills of felsensmier (frost heaved boulders) gives the area a moon-like appearance. This prompted Capt. Back to describe the area as looking like the slopes of Mt. Vesuvius. Travel in this area is very difficult and arduous. In several areas there are large, deep gorges, up to sixty m deep. These features, which seem so out of place in an area of gently rolling hills, were formed from glacial meltwaters which tore through the thin, fragile topsoil and easily fractured slate bedrock.

Eagles commonly nest on the cliffs. It usually takes little time when hiking through the gorge to realize who is the intruder, particularly after you are dive-bombed by an irate mother.

North of Beechey Lake the area becomes more tundra like with kilometres of relatively flat, undulating land dotted with literally thousands of lakes. After a while most small lakes begin to appear the same, and since very few prominent landmarks exist, navigation



is extremely difficult. While travelling through this area I often wondered how the early arctic explorers, without our sophisticated air photos and maps were able to navigate through this maze.

North towards the Western and Ellice rivers the landscape changes dramatically. The Tinney Hills rise approximately 90 m over the flat Western River valley creating a startling contrast. To the east the Western River follows along the Bathurst Fault.

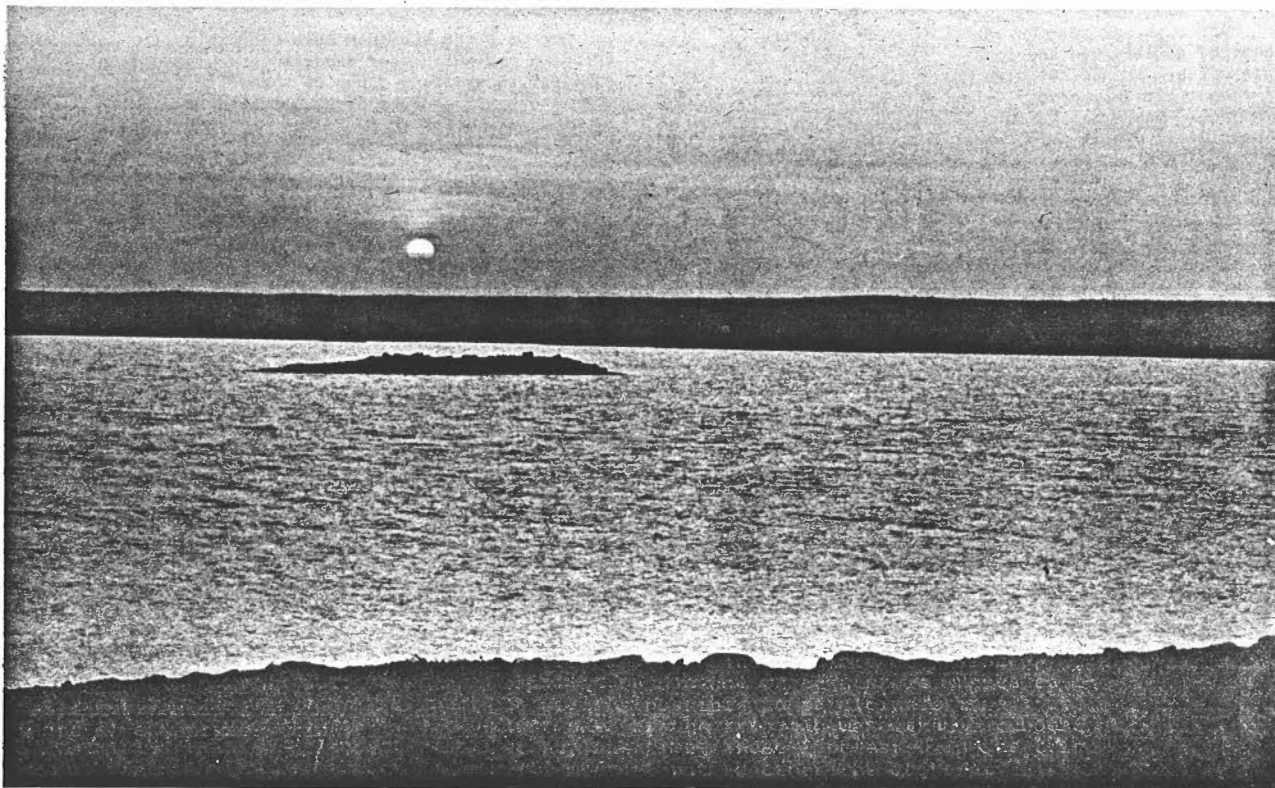
The fault system which extends from Bathurst Inlet in a southeast direction towards the Back River is by far the most prominent feature of the area. It represents a failed arm of a Proterozoic aulocagen. It was somewhat similar to the splitting of North America and Africa, only in this case the rock fractured but did not split entirely apart. All this happened 1.7 billion years ago, resulting in 150 km displacement. The effects of this geological event are still very evident today in the deep valley with extensively fractured rock. Walking in this area was extremely difficult because of the jagged and fractured shale. Often boulder hopping, where one slip could result in a very nasty injury, was the only means of travel. An interesting note is that this fault provided an excellent corridor for the Bathurst Inlet Eskimos to travel inland to hunt caribou. A number of old Eskimo hunting camps were found throughout the area.



To the east of the Bathurst Fault the area is much the same, covered with large round granitic outcrops. The valley of the Ellice River is very different however. Here large sand beaches and dunes prevail, with a number of excellent campsites as well as a nice warm place to swim. Since the water was relatively shallow it had had time to warm up considerably; here we could stay in the water for twenty minutes at a time. This is exceptional, as can be verified by anyone who has been in the arctic and tried to have a swim. You are usually trying to swim around ice flows.

The Ellice River was the last area visited; two weeks of no bugs and 30° weather provided us with our only opportunity to catch a suntan. Most of us walked around in our underwear, others with even less. We all got sunburns, some in less embarrassing places than others.

All in all it was a fitting end to a most enjoyable summer.





nastawgan published by the wca editor: sandy richardson printed by bayweb

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

## EDITORIAL

With this issue our paper has taken on a new look and a new name. Our new name NASTAWGAN (the emphasis is on the second syllable) is an Anishinabi word meaning "the way or route (that one would take to get through the country)". It refers to either summer or winter travel routes, over land or water.

We believe that this name is both aesthetically more appealing, and more descriptive of the contents of the paper. No longer are we simply a canoe club, but rather an association of four season wilderness travellers. We venture into the wilderness in a variety of ways: canoeing, backpacking, snowshoeing and cross-country skiing, as can be seen from scanning a cross section of articles from past issues of the newsletter. The common thread that binds us together is a love for the land. We seek out wild and natural places for the sheer joy of being there; our modes of travel vary with the seasons and the terrain. But always in our quests to find unspoiled nature, we are searching out and following "the routes that one must take to get through the country" - Nastawgan.

The choice of an Anishinabi word is also important. It proudly displays our respect for and everlasting debt to the First Canadians; for it was they who first travelled the routes we now seek out for our wilderness trips, they who guided, assisted and often saved the frequently inept "explorers" we learned about in our history classes, and they who gave us the canoe, the snowshoe and the toboggan that we use for our wilderness travels. The native peoples have long understood the interrelationship between man and the rest of nature, and lived at one with their environ-

ment. We who seek that same oneness in our wilderness travels are surely spiritual brothers with the Anishinabi.

One does not change the name of a publication hastily or without a lot of thought and research. The Communications Committee began its search for a more appropriate title in 1978, following a backpacking trip two of the members made in Auyuittuq National Park. There, amidst the rugged mountains and glaciers of the high arctic, we were struck by how much more appropriate the name Auyuittuq was than the original name, Baffin Island National Park. We were convinced that we could find a similarly more appropriate name for this newsletter.

We contacted many experts, including WCA member Craig Macdonald who has been researching traditional native travel routes in northern Ontario and Quebec for a number of years. Many possibilities were considered, but Craig's suggestion, NASTAWGAN, seemed to be the one that best conveyed the spirit of what this paper is all about. It took nearly three years of further research to find the best spelling, to verify the exact meaning, and to ensure that the word is widely known and understood in northern Ontario and Quebec. The Committee is most indebted to Craig for all the research he has done on our behalf.

The search has been long; but it has been very successful. Now, with the first issue of volume 9, we proudly introduce our new name - NASTAWGAN.

## news briefs

### WOULD YOU LIKE FIRST CLASS DELIVERY OF NASTAWGAN?

Although our beloved postal service attempts to provide equally bad services to all Canadians, there are certain locations where third class mail is infrequently delivered.

Would Nastawgan reach you more quickly by First Class Mail? Would this faster delivery be a benefit to you? Are you willing to pay the difference between 1st and 3rd Class postage rates for your newsletter?

If a sufficient number of WCA members answer YES to the above questions, it may be possible to provide you with 1st Class delivery.

If you would make use of this service, if offered, please advise me as soon as possible. Simply send a note saying that you are willing to pay for 1st Class mailing of your newsletter to R.S. Hart, 1421 Lorne Park Rd., Mississauga, Ontario L5H 3B2 before April 30, 1982.

### 10th ANNUAL DON RIVER DAY

If you are looking for the world's best urban canoe trip, this year's 10th Annual Don River Day is taking place in the heart of Metropolitan Toronto on Saturday April 17, starting at approximately 10:30 a.m. For more information, contact George Luste at 416-534-9313.

### DEADLINE FOR THE NEXT ISSUE

Articles, trip reports, book reviews, equipment comments etc. are needed for the summer issue. Please send all material to the editor no later than May 21 for inclusion.

### CANOEISTS WANTED

One or three seasoned male canoeists with both tripping and whitewater experience are needed to complete an existing group of three for a canoe trip down the South Nahanni River, leaving from Fort Simpson July 8 for three weeks. For details contact Bob Moore, Geography Dept., White Pines C.V.S., 1007 Trunk Road, Sault Ste. Marie, Ontario, P6A 5K9.

### SUMMER CANOE TRIP

Graham Barnett is looking for a canoe partner and/or an additional canoe team for a 4 to 5 week trip in the Northwest Territories or Yukon this summer. (The Thelon is being considered.) If interested please call 416-654-9805.

### NAHANNI TRIP

A skilled male or female paddler is being sought as the 4th person for a trip on the Little Nahanni and South Nahanni Rivers, July 1 to August 10. Anyone interested should contact Jamie Jennings in Toronto at 416-967-4171 (evenings).

### ENVIRONMENTAL MONITORING SYMPOSIUM

The Alberta Society of Professional Biologists is holding a symposium on Environmental Monitoring in Edmonton on April 20 and 21. For more information and registration contact: Don Thompson, Secretary, Alberta Society of Professional Biologists, P.O. Box 566, Edmonton Alberta, T5J 2K8; or call 403-429-9110.

## FROM A SWEDISH CANOEIST

The WCA received the following letter from a Swedish Canoeist. John Cross has responded on behalf of the club and sent him the newsletters requested. We are printing this letter here in the hope that some members might be interested in responding.

Hallo!

I am from Sweden and am very interested in paddling canoes. I have been paddling canoe and kayaks about twenty years. I have used many different types of canoe and kayaks. Sometimes I use to make them myself, particularly the kayaks, where I use a model I have seen at Greenalnd, where I have been paddling many times. I really like the free life in the wild nature and next summer (1982) I will go over to Canada and do a really big expedition, about 3500 kilometres. It will take a long time, about three months, and when I am back to Scandinavia again, I will make some plans about a new expedition to the north and north-east of Canada. This expedition will take a lot of time, perhaps I will be there for the rest of my life. It will be a combination-expedition, summer-winter, as I have some plans to try to come over to Greenland over its north side and then down to Angmagsalik at the east coast. You see, we live just once.

I have been reading some books about paddling in Canada, but these are very old Swedish books and the only Canadian books I have seen are Nick Nickels - Canoe Canada and Bill Mason - Path of the Paddle. Now I am really interested in getting more regular information about paddling and expeditions people have done and are going to do. Perhaps I will in this way hear from and meet people who are interested in doing the same expeditions as I.

We are just two persons (just now), who will do this trip. Many are interested in it, but they haven't so good experience that they can follow us. The best paddler I have met here in Scandinavia was Norbert Suttler from Austria. He is one of the best white-water paddlers, in kayak, in the world. It was really interesting to be paddling together with him and I always learn something from such a man.

Now I am wondering if you can help me with some things.

(1) As I told you before I am very interested in getting so much regular information as possible. Do you have any newsletters or can you give me some addresses to some who have and tell me how much they cost? I should also like to get old canoe-newsletters from the beginning of 1980 and perhaps older.

(2) I have been reading about that there are some films about canoe-paddling and canoe-expeditions and so on. For instance: "Impressions" by Christopher Chapman (this film was done for the Hudson's Bay Company) and some of Bill Mason, "Cry of the Wild," "Paddle to the Sea", "Songs of the Paddle", "Path of the Paddle". I suppose there are many others, too, I have not heard about yet.

I should want to buy a copy from each film and from so many other different films as possible. The type of film should be Super-8 or videocassetts, but I will take what I get. Do you think you know where I can buy these?

(3) Or do you think I have any possibility to see these films when I come over to Canada and where can I see them?

(4) Perhaps you know where I can find films about paddling in Alaska, too?

(5) I should also like to have some books or trip-logs about paddling at very old canoe-routes.

Do you know where I can find and buy these?

(6) Do you know something about the Back River? I have some plans to do an expedition from the Rocky Mountains - the Islands of King William at the Arctic Ocean. Have you heard about some people who have done such an expedition since 1962?

(7) Do you know some people who could be interested in following us? Than this people must have (some) experience and be able to work (a little) with cameras, as we are going to do a film about this expedition. If you know some, man or woman, let me know their addresses and I will write to them or call them up by telephone, at once.

(8) Do you know if they have done a film about the Netsilik-eskimos? I think there are one or more films about their life, hunting and so on. I think I will meet some at my expedition to the north and as I have some Eskimos far away in my family, I am really interested to know so much as possible about them.

(9) Do you know something about rafts? We have just one place in Sweden, where they use two small rafts to follow the river some miles. I should like to try it in USA-Canada, then buy one, take it with me to Sweden and perhaps start some type of rafting in Scandinavia, if I don't find an Indian or Eskimo girl who does that I can't leave Canada after my expeditions.

I hope I am not giving you too much trouble with all my questions. You see, this is one of the few ways for me to get information and friends over there, who have the same interest as I.

I am working at oil-rigs in the North Sea, so I use to be much of my free time in Norway. That's why I have given you an address to Norway.

I really hope to hear from you.

Best Regards

Lars Rundberg  
Box 82  
N-4061 KLEPPE  
NORWAY

Dear Editor:

I just got my winter issue of The Wilderness Canoeist; it gets better all the time.

The articles on various trips were extremely interesting. However, could people give us practical details re: put-in and take-out car shuttle, costs and time involved? Also what maps are required? The "Five Trips Comparison" was very useful in this regard.

Alma Norman

## PHOTOGRAPHY COURSE

The Beginner's Course in Photography for Canoeists is alive, well and clicking in Toronto. This 4-week course organized and presented by WCA member Toni Harting to teach the basics of nature photography on and near the water to the canoeist/ outdoors lover, had its start on February 17. Depending upon demand, this same course will be offered again in the future. Courses for basic and more advanced photography for canoeists are being prepared for the 1982-83 Fall and Winter seasons. More information on these courses will be given in future issues of this paper and at the WCA Fall Workshop Weekend.

## EXPEDITION

David Pelly's new book Expedition, reviewed in this issue of the paper, may be purchased through the WCA, directly from the publisher. See the ad on the back page for details.

## WCA CRESTS AND DECALS

The WCA crests and decals are finally ready. Crests are 2" X 4" and show the WCA logo and name in two shades of blue and white. They will cost \$3 each. The decals are 3" X 6" and match the crests in design and colour. Their cost is \$1.

Both crests and decals will be on sale at the AGM, and other WCA events. Members wishing to order by mail should send a cheque or money order payable to the Wilderness Canoe Association to: Bill King, 45 Himount Dr., Willowdale, Ontario, M2K 1X3. Please include a stamped, self-addressed envelope, or add 35¢ for postage.

## PADDLING SALE

Margesson's Sports (see address on back page) is holding a paddling sale March 19 - 27. Sale items include: Scott canoes, Perception & River Runner kayaks, Grey Owl Paddles, Bukflex II, Stearn's PFDs, Camp Trail canoe packs and many other canoeing accessories.



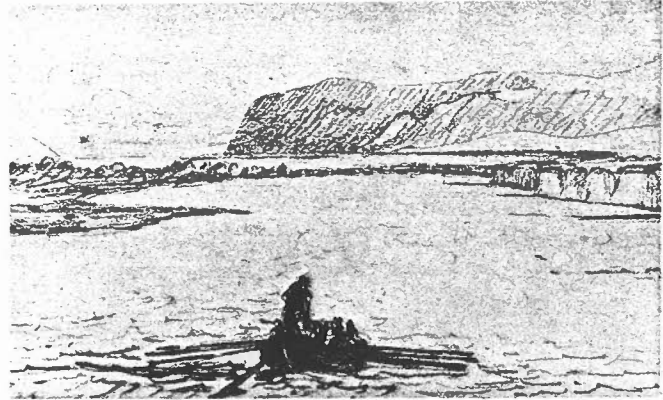
EXPEDITION  
An Arctic Journey Through History  
On George Back's River

Author: David F. Pelly  
Publisher: Betelgeuse Books, Toronto, 1982  
Reviewed by: John Cross

Take a canoe trip writeup of the descent of a Barren Lands river, with a stimulating mix of rapid running, hostile winds, wildlife sightings, and near-disasters. Deepen it with an historical "first" expedition to follow one of the most remote big rivers in the country. And round out the description with a short account of the pertinent history of the earlier time: those developments that led to the earlier expedition, and their results. It is on such a framework of personal experience and research that Expedition is constructed.

The 1977 Pelly Lake Expedition had a particular interest for its members beyond that of an exciting canoe trip on the Back River. It was to finish at Pelly Lake, named by George Back in honour of the then governor of the Hudson's Bay Company, who had encouraged and supported his expedition. Two of the 1977 party happened to be descendants of Governor Sir John Henry Pelly, and at Pelly Lake they erected a cairn and historical site plaque in his honour.

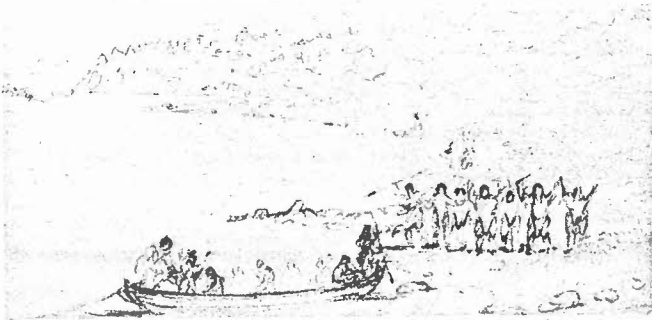
It was during Pelly's term as governor that the Hudson's Bay Company reached the peak of its power and then, under the pressures of expanding settlement and a changing economy, passed it. About one-third of the book describes the life and important acts of the governor, including the merger with the Northwest Company, the settlement with the Russian American Fur Company, the Oregon boundary settlement, and the securing of Manitoba for Canada. Since these deals, vitally important to the future shape of Canada as they were, have perhaps faded from some of our memories, it is pleasant and useful to be able to review them in a brief narrative enlivened with extracts from many of the governor's letters concerning them. David's enthusiasm for his ancestor might seem a trifle extravagant did we not recall to what extent the fortunes of great companies and nations in those days bore the personal imprint of the few gentlemen in whose hands they were placed.



Mouth of the Thlew-ee-choh, July 29, 1834  
Public Archives, Canada C-93096

sketches of the man on the spot, probably blowing on his hands alternately to warm them and to ward off the blackflies.

The third narrative, among whose chapters the others are entertainingly spaced, is the story of the 1977 trip. Travelling in light canoes (compared to Back's 30 foot boat), assured of a plane pick-up, the boys had their own anxious moments prying a canoe off a rock in waist-deep frigid water. Nevertheless, what appeared to impress them was not so much the difficulties of the terrain, but its wildness. To see wolves, caribou, and musk-oxen remained exciting; but towards the end of the trip, the log extracts seem to convey a casual acceptance of their appearance. They belonged with the landscape; the canoe trippers, cold and wet, though appreciative, were intruders. Several times David remarks on how the landscape appears identical to the first explorer's description. We might be tempted to ask, "What else would you expect?", until we remember that not everywhere in Canada is this still so. "History has heretofore been kind to it. Will the same be said in a hundred year's time?" We hope that the wilderness landscape of Back's sketches and Brian Pelly's colour photographs, of the Arctic Land Expedition in 1834 and the Pelly Lake Expedition in 1977, will remain forever.



Esquimaux greeting the Expedition, July 28, 1834  
Public Archives, Canada C-37574

Proceeding directly from the Hudson's Bay Company's surge of prosperity and territorial expansion were the northern expeditions of which George Back's, down the Great Fish River (Back River today), was one of the most remarkable. As the summary of the expedition makes clear, Back was a competent arctic explorer and humane leader of men, but also an accomplished writer and artist, whose sketches, made under the chilling conditions in which most of us are happy to click our shutters and go, capture the awe he felt of the huge, untravelled regions he penetrated. Most of the sketches reproduced in the book from the Public Archives of Canada are published here for the first time; some of them are placed alongside the engravings eventually made from them to illustrate Back's own book. While the engravings reveal more detail of clothing and equipment, it seems to me that something of the mood of the land was better conveyed by the rough charcoal



Steep portage beside the Hoar Frost River, Aug. 19, 1833  
Public Archives, Canada C-97304





# minnow lake

## a winter sojourn

Stewart McIlwraith

Photos: Sandy Richardson

Six campers met at a restaurant just outside of the west gate of Algonquin Park. We were on the first leg of a four day camping trip during the Christmas holidays.

We sat around debating the advantages and disadvantages of taking pre-fried bacon on winter camping trips, until the restaurateur pleasantly interrupted to take our breakfast orders. Over breakfast we made final adjustments to our trip route, having learned that the bridge leading into the Western Uplands Hiking Trail had been rebuilt, after having been washed out by the fall floods.

Reaching the parking lot, we donned our skis and packs and left the toboggans at home. This was a "light-weight" winter camping trip. We followed the east branch trail for approximately three km through fresh snow that easily yielded to our passing. We then followed the Guskawa Creek valley up to the west before everyone was hungry enough for lunch.

After lunch we left the valley and cut across a height of land to reach Minnow Lake where we set up a base camp. We had no problem finding a site; as luck would have it, right where we entered the lake there was a treed island providing some shelter from the winter breezes.

As John Cross might say: "Aah...we all set up our tents and had, aah, dinner cooking quite quickly,..." since we were 'cold' camping and did not have to gather firewood or poles for erecting the tents. Also, ours was a "low impact" trip as Cam pointed out.

After enjoying one of those long winter nights of sleep we woke to the sound of clattering pots from our neighbours. We promptly got up and answered back with the roar of our little stoves as we also began the morning ritual of frying the bacon. The third pair of the party munched on their warmed prefried bacon, their philosophy being to leave the excess grease at home rather than carry the excess weight. (Lenny Winn, et al., 1981) (It also saves a lot of fuel!)



We then donned our skis to set off for a day's excursion. Cam's wirebale broke, after many years of dependable service. Having no spare in camp, though some of the group did carry snowshoes for such happenings, Cam succeeded in lashing his boot to his ski much in the style of a cable binding. This apparently worked quite well as he skied for the rest of the three days with little hindrance.

We followed the shores of a string of lakes avoiding venturing far into them because of the slush. The lake levels had been lowered allowing for easy skiing through the marshland. On the route back we bushwacked our way through the open hardwood forest of the surrounding hills. Here we came across the tracks and depressions created by the resident moose population.

The third day brought sunny skies. This day we followed many cut lines running through the park; a great asset for the skier and moose. We followed a mixture of portages, hiking trails and any old logging roads that ran our way. Getting back to camp at dusk, we settled down to eat our last dinner of the trip.

The final day we packed our bags and negotiated our way over the height of land to rejoin our earlier trail in. Returning to the first day's lunch spot, one of the party retrieved her thermometer which had slipped unnoticed into the snow that first day.

We made our way back to the hiking trail to find it packed down by snowshoers. This provided for fast skiing. The trail sloped in our favour as we enjoyed the effects of gravity making an exciting finish to our annual Christmas winter camping trip.



# the lower albany

Bill King

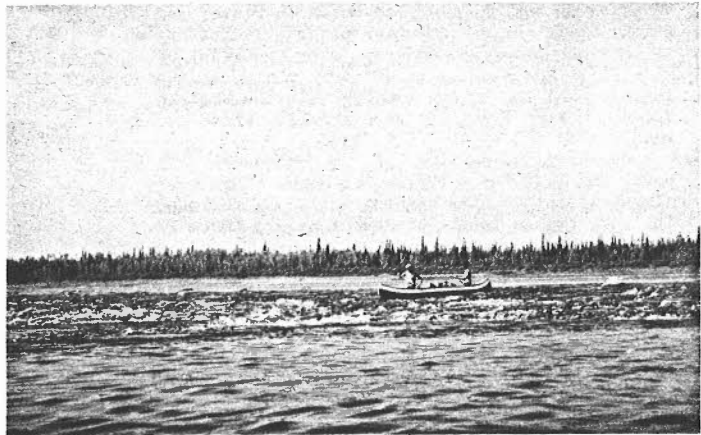
For those with a hankering to see James Bay lowland but without the time or experience for a major, whitewater, wilderness expedition, the MNR's route #29 (Limestone Rapids to Fort Albany) is an excellent solution. This trip begins near Hearst on the Trans-Canada's northern route and follows the Kabinakagami, Kenogami and Albany Rivers to Fort Albany on the Albany's James Bay estuary. The trip length is four-hundred and two km. with no portages and no major rapids. The ministry brochure recommends six days for the trip and that information is reproduced in Canoe Routes of Ontario and Canoe Canada. It is only on detailed reading of the ministry handout that one becomes aware that the trip, on which this recommendation is based used a canoe equipped with an outboard motor! Allowing that low water means less current, (our trip was in late August of an extremely low-water year) I would still recommend that anyone paddling normal-length days allow at least twice that long, particularly if they want an occasional layover day. It might be well to keep in mind that my subsequent remarks all describe these rivers at low water.

The start is reached by driving fourty km. west from Hearst on Highway 11 and then fourty km. north on Rogers Road bypassing the Calstock Indian reservation to the put-in at the Kabinakagami below Limestone Rapids (which are not navigable - they say!) For a few dollars it is easy to get someone to come with you from Hearst and drive your car back. This move is strongly recommended by the OPP as equipment, car parts, etc., has a tendency to grow legs when left unattended at Limestone Rapids. (It also saves an hour and a half at pickup time.)

The Kabinakagami is not unlike the Upper Credit in size and contour. The numerous swifts require either a keen eye for the deepwater channel or a willingness to wade. The banks are clay or sand and gravel and the forests mixed deciduous and conifer. The fishing is excellent in all three rivers, particularly for pike. None of us is a fisherman, but it seems unnecessary to do more than trail a line behind the canoe.

The paddle to the junction with the Kenogami took two days. Here, on a bluff which commands a magnificent view in three directions, was situated the HBC trading post called Mammattawa. Abandoned for fourty years, the buildings are still in good enough shape to make interesting browsing.

The Lower Kenogami, in contrast to its wilder upper reaches, is wide and lazy with a very sluggish current at low water. The several side rivers at their August level suggest a child dressed up in adult's clothing - huge deltas with a trickle of water which it was sometimes a challenge to find. None, however, was actually dry. The exposed gravel banks of the riverbed made it unnecessary to search for more elaborate campsites. The weather was mostly sunny and hot. However canoeists in this area are well-advised to take adequate cold-weather protection. A shift in the wind to the north-east where it blows off the bay can bring a drop of as much as 25°C in a very short space of time. Our brief periods of bad weather were sufficiently severe to make us speculate whether we could have withstood a whole trip's worth.



We were quite disappointed with our lack of animal sightings (one black bear). However, this country should certainly satisfy any birdwatcher! Sandhill cranes and Canada geese abound as well as many species of smaller birds.

The junction of the Albany and Kenogami Rivers, known as the Albany Forks, provides another impressive vista. The Albany is wide and mainly quite flat with sudden metre high drops extending irregularly across the river. Despite the extreme shallowness of many sections (I don't think I would have believed that a river could be over a kilometre wide and only ten cm. deep) we only had one extensive period of wading. However, I would not recommend taking your



cherished stripper canoe down this river. The scenery is deceptive. The river creates its own ecosystem and one has only to walk a short distance through the thin fringe of trees along the riverbank to be in true James Bay lowland - muskeg and string bog! One can then appreciate the virtual impossibility of summer travel in this country other than by river. The Albany provided our only human sighting since day one - an Indian family, camped on the shore, who pointedly ignored our passing. At Ghost River there is another HBC trading post and an Indian village. There is some controversy whether these are abandoned or in seasonal (winter) use - we certainly saw no signs to suggest recent occupancy. "Bad Rapids numbers one and two" (the MNR's names) are somewhat more challenging than the usual drops and might produce some big waves during high water.

Navigating the islands of the Albany Delta requires keeping a close eye on the map and, at low water, sticking to the main channel. Frequently separate islands were found to be continuous.

The arrival in Fort Albany is unlikely to make one think that he has mistakenly arrived in Shangri La. The people at the hospital are very hospitable and they serve excellent meals! Depleted supplies can be replenished at Nakogee's General Store or at the HBC. If one has the time, Bill Anderson, a retired HBC manager and longtime resident of the area, is well worth a visit although this involves going out to Anderson's Island.

Getting back from Fort Albany poses a medium-challenge for the organizer. People are no problem - it's canoes! Austin Airways services Fort Albany daily except Sunday. But canoes are only carried on a "space available" basis. Translated this means that they will probably wait for some time on the tarmac. If you are as loathe to be separated from your precious canoe as I am then other alternatives are worth investigating. I'm sure that without too much trouble one could persuade one of the locals to make the six-hour trip to Moosonee (the railhead). They do the trip regularly in twenty-two foot freighter canoes which can carry enormous loads. This would also be a good chance to see James Bay. (We flew out in cloud and saw little). I don't think they are allowed to take people but may take your canoes to Moosonee if their palms are appropriately greased with silver. (They took curs, anyway.)

Austin flies either to Moosonee or to Timmins (but not to Cochrane). The ONR regular train runs three times per week between Moosonee and Cochrane. (The Polarbear Express is an excursion train and does not carry freight). The train trip is both slow and dull - businessmen might well enquire the name of the publicist for the immensely popular P.B. Express - he must be a genius! The train connects nicely with the westbound bus which, in about two and a half hours, will take you back to Hearst and your waiting car.



My overall assessment of the trip? I wouldn't want to do it again but can nonetheless recommend it to other "James Bay virgins."

## changes on the salmon

Joel Charo

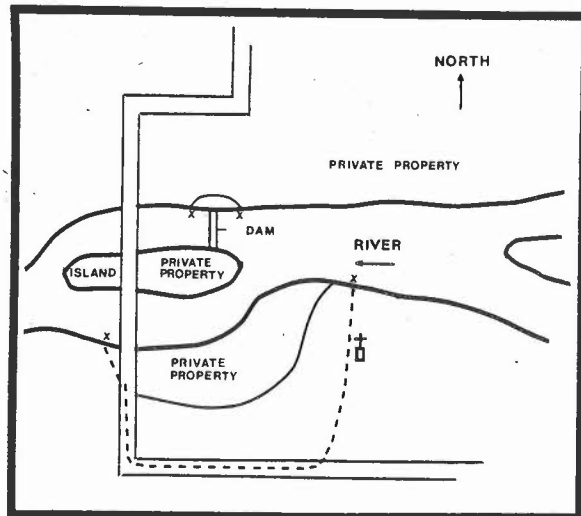
Whitewater canoeists who travel on the Salmon River should be aware of a change. A dam has been installed at Lonsdale. This dam used to be there until four years ago, and last fall another one was built. The dam is used to reduce the accumulation of frazil ice which forms downstream and the further destruction of property in the Waddington Valley.

This means a portage on the north side of the river. Actually when I spoke with conservation people they mentioned a route which is upstream a bit and then a portage on the south side. (See map)

The north side of the river has a steep bank so a portage may not be so easy, especially in the early spring. The south side route looks a bit long. One must consider that I have not checked out the south side route other than by conversation with the Napanee Conservation Authority officials.

Don't try to portage on the island. It is private property belonging to Mr. and Mrs. Crow. Mr. Crow was very specific with me when he said that the shortest and closest portage is on the north side.

I hope this information can be of use to other Salmon River paddlers.





Jerry Hodge

### WOOLING THE EARTH

While I was a young boy and teenager, my parents, probably in an effort to get some peace and quiet, sent me off to a small camp on the shores of Belwood Lake. Belwood Lake is a flood control reservoir salvaged from farmland near the head of the Grand River above the Elora Gorge in southern Ontario.

Wilderness there was about twenty acres of reforested evergreens nearby. The lake shrank steadily all summer as the water escaped to flush the sewage of Fergus, Elora, Kitchener Waterloo, Cambridge and Brantford further on toward Lake Erie. In turn, it became the sewage outfall of one town and the drinking cistern of the next. By the time the water reached Brantford it was so mineralized it was hard to get a lather for shaving and you could taste it through the tea.

Belwood Lake was not wilderness, but then neither was Walden Pond where Thoreau's famous statement "In wilderness is the preservation of the world." was first issued. As a matter of fact Walden Pond was 2 short miles from downtown Concord, Mass. It is said that Thoreau wrote the line in Concord and that on a trip to real wilderness, Maine, he was somewhat disenchanted. While I am not trying to strike a comparison between the quality of writing of the two of us - I mean just look at it - I think it is fair to say neither of us had a very auspicious beginning to this idea of wilderness, but we would both count ourselves within the context of nature lovers and outdoor enthusiasts.

Perhaps the 'humanized' environment gave me the confidence to continue to explore because Nature had been tamed and reduced in scale to one I could cope with. As I grew older and

expanded my excursions the confidence remained. The dangers were chartable. There were maps, trip reports, similar landscapes, friends to go with, park wardens and bear pamphlets and picnic tables kept showing up in the most peculiar places. Rarely, we go into uncharted and unpopulated areas with no information and there are really few areas left in North America like that to go to.

Last month, February, a noted author and environmentalist died. He was Rene Dubois doctor and environmentalist. His last book, "The Wooling of Earth" asked that Humankind establish once and for all natural preserves where organisms of all kinds native to that habitat are kept relatively free from pillage and pollution by other Humankind. With our New World populations growing rapidly and hungry for frontier resources, we clearly have a tough fight.

The Conservation Report this month will focus on some of the issues involved in Wooling the Earth and the dangers of not doing so.

### DOWNSTREAM AND DIRTY

A paperback, published by Lorimer and Co., written by Dr. H.D. Foster and Dr. W.R.D. Sewell called "Water, The Emerging Crisis in Canada places the mythology of super-abundance of Canadian water resources to final, clear and complete rest.

Dr. Sewell, the chairman of the Geography department at the University of Victoria, has taken the book on the road and is promoting a more sober assessment of our water supply. He suggests that much Canadian water is in the wrong place and is available at inappropriate times. As with oil much of our available water supply has been developed cheaply and future resources can only be harnessed at rapidly escalating cost.

Unlike oil, gas and coal, our primary energy resources, water has no substitutes. It is unique both in its necessity to life in all its forms and its unique ability to become polluted with just about anything we can produce. We cannot survive for more than a few days without clean water. We can pollute it much faster than we can clean it up.

Canada's western plains, blessed with an abundance of oil and gas has large areas very sensitive to drought. Already there are areas of the west which are close to a water shortage. Sewell and Foster estimate that our demand for water will increase dramatically over the next two decades. They suggest four primary causes:

#### a) the demand for energy self-sufficiency

Cooling water demands for a modest CANDU reactor is equivalent to the water demands of all of the municipalities of Western Canada. This is cooling water and is therefore not contaminated with anything but heat, but doubling the water supply of Western Canada to accommodate one CANDU reactor is awesome. The Syncrude project uses 86 million litres of cleaning water per day. 10 plants like it will be needed for energy self-sufficiency. This water is not returned to the environment in its original state.

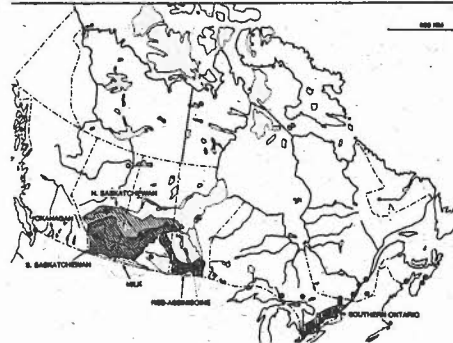
#### b) the demand for outdoor recreation opportunities

Populations of both the U.S. and Canada are becoming more interested in clear water fishing, boating, canoeing, sailing, cruising etc. As water becomes more contaminated the chances for Ontario's tourist industry to attract tourist dollars particularly from the U.S. is likely to become more difficult. We need to maintain these resources in our own best interest.

#### c) environmental concerns

In the midst of economic and energy crises the concern for the environment is diminished. The problems of pollution, resource management and conservation do not however disappear. If they are submerged by other issues they often become worse because of neglect. F.O.N. and other environmental groups have developed over the past two years a policy on Wetlands. We now that only 15 to 20% of the Wetlands we once had remain in an acceptable state in Southern Ontario. There is concern that these habitats and fresh water storage areas are being given up to 'development'.

### POTENTIAL WATER-DEFICIENT REGIONS IN CANADA

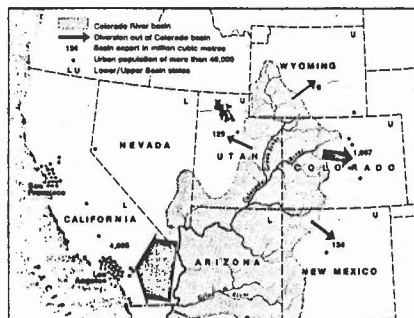


These three uses are expected to increase the demand for fresh water but do not increase the supply. Water use for industry is expected to increase from 120 billion litres/day to 282 billion litres per day in the next twenty years.

#### d) water diversion schemes

The last and most critical water demand involves a migration from the U.S. north-east to the sunbelt areas of south-western United States. This area already has a chronic water shortage. The map attached shows the uses of the Colorado River, one of the few major rivers supplying the region. This region is a good example of problems faced by populations in water-scarce areas.

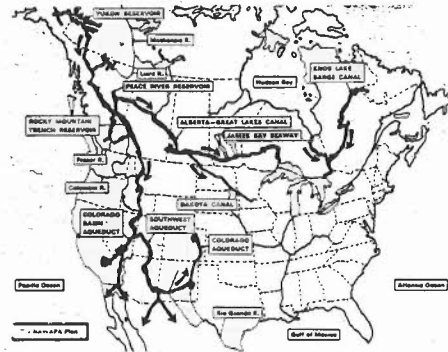
### DIVERSIONS FROM THE COLORADO RIVER BASIN



Bickering for the resource has been ongoing since 1922. Its waters serve parts of six states and Mexico. The map shows relative distributions of the available water by black dots. One of the problems is that demand dictates that absolute amounts are needed in certain areas; if you grow artichokes they need a set amount of water each growing season. The river however doesn't supply you with sufficient water if there has been a low water year. They was, at one time, agreements signed that permitted use of more water than the river produced! Modern agreements lean more heavily to percentages of stream volume than absolute fixed amounts. The problem is clear, however. Consider the amount of water management and measurement required to ensure that all areas get the right amounts of agreed-upon water with rain storms adding water at various points along its length, variability of snow cover

each year in the headwaters and years of drought. If we carefully maintain our resources now, Canada need not enter such a situation. Historically we have not managed our resources well.

### THE NORTH AMERICAN WATER AND POWER ALLIANCE



What the West wants to solve its problems is our water. NAWAPA, the North American Water and Power Alliance, has developed a scheme which diverts water from as far away as the Yukon into the south-western United States through a series of aqueducts and river reversals costing 150 billion dollars. The scale of the project is incredible. It diverts the Fraser, the Columbia and the Kootenay rivers; one of the proposed dams is 1.5 times larger than any other on earth. It would travel south through the Rocky Mountain trench, one of Canada's last remaining wildlife wildernesses; it would produce power on the scale of the James Bay project and solve California's increasing problems with mineralization of irrigated soil. California's blooming is in trouble. Water used in irrigation also deposits in the soil the salts it carries from distant stream banks, and erosion. The water usually carries this debris into the sea where it contributes to the sea's saltiness. If the water is used for irrigation, much of the salt is left in the soil of the fields. Plants use the water but not the salts and next years crop must deal with soil that is a little saltier than the year before. As the rivers carry water through hot and semi-arid plains there is also a loss of water due to evaporation. Behing holding dams in hot climates, water evaporates, but the salt the water carries remains. All of these circumstances means saltier water and saltier soil. The consequence of the salt build-up is a return to the desert conditions from which the original land was wrested. Water carried from irrigation ditches in one area of Arizona must be carried by pipeline to the Gulf of California. It is too salty to put back in the Colorado River. A facility has been built to remove the salt from this water. The small test facility could desalinate the water by using a form of molecular screen (reverse osmosis). On a large scale the desalinated water could be added to the Colorado and used again downstream. Canadians should consider the cost of all of the above schemes. We need to know the lengths other nations must go to retain a scarce resource. It will help us to keep our own resource abundance in the proper perspective. Water is life.

ACID RAIN  
TECHNOLOGY OR POLITICS

"How can Acid Rain be stopped?"

The question was put to John Roberts, Federal Minister of the Environment.

"The solution is very straightforward," he said. "We must reduce drastically the amount of acid-causing pollution that is being emitted in both countries. I am told it is technically possible to effect such reductions. The stumbling block is cost. How much and by whom?"

The problem is cost. The estimate of removal of sulphur dioxide from all sources in the United States and Canada has been estimated as between 5.5 and 7.5 billion dollars per year!

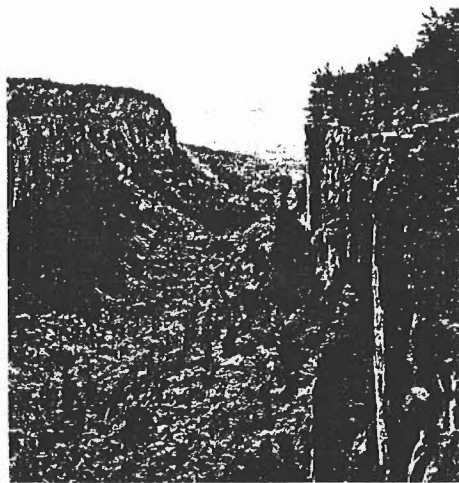
With energy self-sufficiency the current catch-word, coal is becoming a more desirable fuel in North America. It produces a higher volume of sulphur dioxide than either oil or gas. It is clear energy self-sufficiency is being carried on the back of environmental degradation.

The political issue is clearly covered in the book "Water, the Emerging Crisis in Canada."

Some of the points made are:

1. From the 1972 Declaration of the United Nations Conference of the Human Environment  
States do not have the right to damage other states environment's while exploiting their own. The offended state is entitled to compensation if they do.
2. When a smelter in Trail, B.C. polluted Washington State in the 1920's and 30's a tribunal set up to study the matter said:  
No state has a right to use its territory in such a manner as to cause injury by fumes to the territory of another. Again payment of damages was required.
3. In 1979 the Economic Commission of Europe signed a Convention of Trans-Boundary Air Pollution. It was pious but had no sanctions for noncompliance.
4. In 1980 the United States and Canada signed a Memorandum of Intent on Transboundary Air Pollution. The document is also pious, says pollution of this type is important and sets out to form a Committee structure to deal with it. There are no time lines-"as soon as possible"; there is no clear methods for disposal nor are there any established standards.
5. At the same time a bill to convert 80 oil-fired power plants in the U.S. to coal was being considered in Congress.
6. At the same time the Clean Air Act in the United States was being amended to lower the standards for clean air to permit the additional pollution from these plants.
7. This past winter John Roberts offered the U.S. a deal. He said if you cut your air pollution by 50% we will do the same. He suggested a 10 year time line. The matter is under study in the U.S. (hoo-hum)
7. At the same time Ontario Hydro decided it would be a good idea to sell power to the States from thermal plants in Ontario. I suppose that way we won't need to worry about U.S. acid rain, just our own. Its a really dumb idea. It also played into the hands of U.S. politicians debating the issue in Congress. "They want to sell us electricity so they make an issue about acid rain."
8. An ad campaign by Mid-Western Utilities is questioning the causes of acid rain. The ads are a lot cheaper than cleaning up.
9. The Clean Air Act amendment in Congress right now does not even mention acid rain.
10. The Federal Government in Canada announced as part of its study on acid rain that it would finance studies into the breeding of acid-resistant fish. Missing the point that there may be nothing that acid-resistant fish have to eat in our crystal clear lakes, I might suggest the possibility of breeding politicians and government scientists who are not acid-resistant. At least they'll go first.

## Provincial Nature Reserves in Ontario



### NATURE RESERVES

A booklet about Nature Reserves was sent to me by the Ontario Ministry of Natural Resources. It is interesting in several aspects first, that they exist on Ontario and secondly that so little is known about them. The comments below explain the background and concept of Nature Reserves and are culled from the introductory sections of the booklet. In addition, the booklet has a set of pamphlets about each of the Reserves, twelve in all.

"Ontario's natural boundaries extend from the Laurentians to the Prairies, and range from sub-Arctic tundra to southern deciduous forests.

It has a diverse range of wildlife. Favourable habitats support a wide variety of species, some of them quite distinctive to the province."

"Recently man has developed the powers to bring about environmental changes on a scale which was formerly reserved for natural processes. Population explosion and the increase of knowledge, technology, economic activity, and natural resource consumption have drastically changed our world. There is a danger that by over-using our natural resources, we will alter the delicate fabric upon which our existence depends."

"In Ontario, several plant species have been eliminated and a number of others are threatened. Ontario's vast natural heritage may seem safe. It is not. In southern Ontario, the once extensive forests have been reduced to woodlots. Many wetlands in southern Ontario have been filled in or dredged. In Northern Ontario natural resource utilization cuts into remaining natural areas."

"Although opportunities to protect Ontario's natural heritage are diminishing, man may yet save examples of what remains. Nature Reserves are one means of doing this."

"Nature Reserves are Provincial Parks selected to represent the distinctive wildlife, natural habitats bedrock and landforms of the Province. They differ from other classes of Provincial Parks in the special degree of protection they are provided."

"The features within Nature Reserves are protected for educational purposes and for research which will benefit present and future generations. Visitors may come to Nature Reserves for study or tranquil relaxation, but only facilities necessary for access are provided."

As of January, 1980 twelve Provincial Nature Reserves occupying 1,599 hectares have been designated. The acreage represented by that is roughly 3,430 acres, the size of seven small farms!

My guess that the amount of pulpwood acreage to produce the booklet is larger than the entire area of Nature Reserves. There seems little doubt that this program needs expansion.

Please excuse the sarcasm but the last comment on page 18 of the booklet is most damning of the government's sanctimony. Listen to this one, folks "Nature Reserves are the cornerstone of the government's attempts to protect examples of Ontario's diverse natural heritage."

It takes four days of hard driving to travel from Montreal to Toronto to the Manitoba border. How long does it take to pass seven small farms?

The pamphlets add the Wilderness Areas set up in Provincial Parks as protection of our natural heritages since they are substantial areas where the forces of nature are permitted to function freely. True, to a degree. What is left out is that most of these Wilderness Areas have already been LOGGED OVER.

In a related note Ontario Hydro has published a very nice little book. It is field guide to endangered, threatened and rare species in Ontario. Perhaps, THEY COULD SET UP A LITTLE BOOKSTORE OUTSIDE THE COAL PLANTS THEY WANT TO USE TO PRODUCE OUR NEW CROP OF ACID RAIN. You remember the ones. The plants that will sell electricity to the United States!

### NOTES OF INTEREST

#### 1. Progress on the Madawaska

The following plan toward the development of the Madawaska River as a Waterway Park is in the works.

-Designation of Park (complete)  
-Data Collection and Analysis (copy received)  
-Master Plan (spring 82)

#### 2. Progress in Quetico ?

A five year plan review has sent out and comments called in. The major problem in Quetico is the effects of acid rain from Atlicon and a new thermal plant 16 km. from the park boundary.

It already has a smelter in Ilfracombe to deal with.

#### 3. Who Gets Parks?

At this writing the new cabinet shuffle in Ontario had not decided which Ministry should handle Provincial Parks. FON thinks it should fall into the willing (?) hands of the Ministry of Recreation and Tourism. That makes a lot of sense to me. The Ministry of Natural Resources, by its very name, has a multiple use mindset.

#### 4. Raccoon Dogs

The European Raccoon Dog was imported into Ontario from Finland in 1981. The original 140 animals have already increased to over 500. They breed fast and have a high level of adaptability. They have not yet escaped to the wild in Canada. So far they are found only in a single fur farm breeding operation. The farm is in the Madoc area and the operator is determined to stay, having already survived several skirmishes with the Federal government. Perhaps a letter to Mr. Davis

Premier of Ontario  
Legislative Buildings  
Toronto, Ontario  
M7A 1A1

Tell him to buy the farm and send the breeding stock back to Finland.

#### 5. LOONS

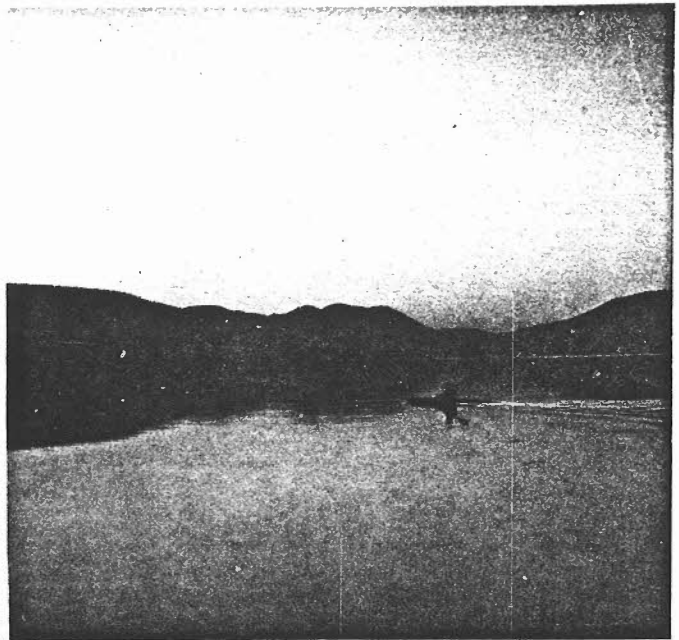
Loons are symbols of our wilderness lakes in Ontario. There are more than 250,000 lakes so the population is large and as you know quite vocal. The Long Point Bird Observatory is running a population survey on Loons. They want to know if the population is in decline in high density recreation areas.

To help please contact

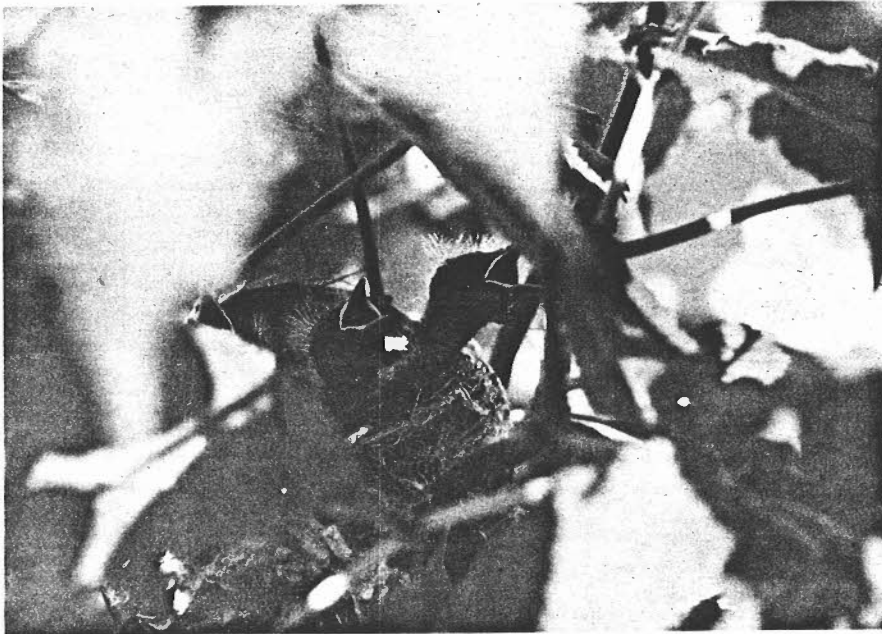
Bet Silieff  
Ontario Loon Lakes Survey  
P.O. Box 160  
Poet Rowan  
Ontario  
NOE 1M0  
1-519-586-2909

ALL QUIET IN THE CASSIARS S.McIlwraith

(Man in the Wilderness, First Prize)



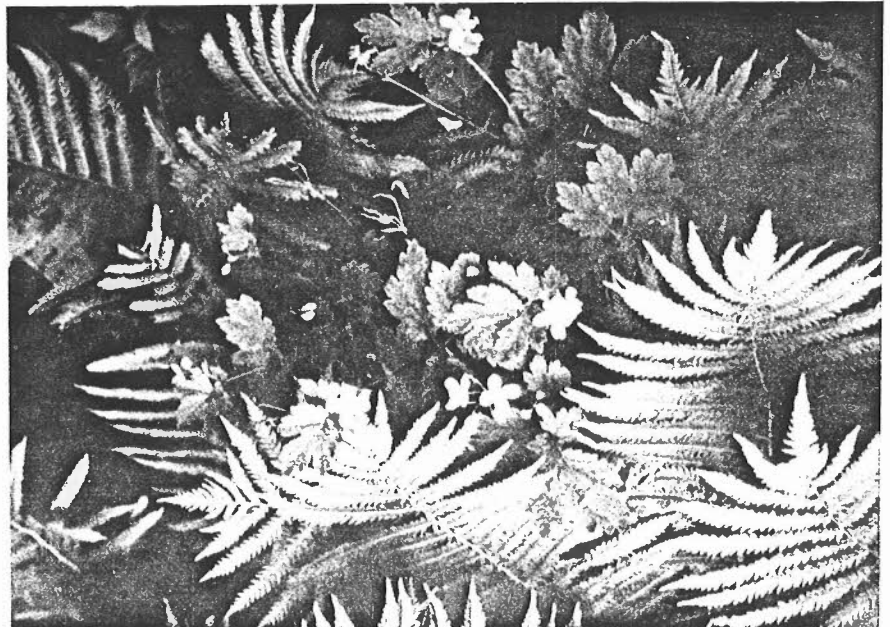
BABY WARBLERS B.Wolfe (Fauna, First Prize)



# photo

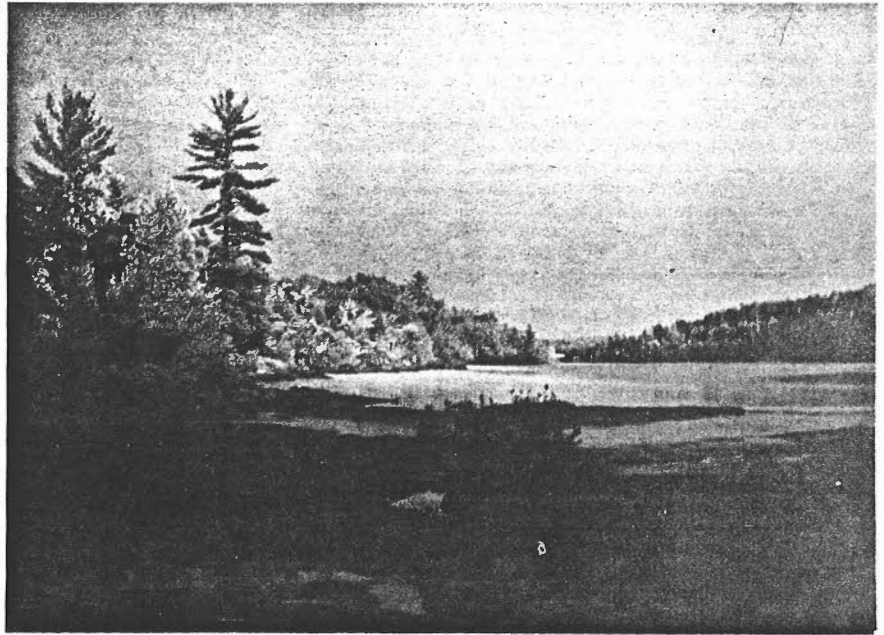
This year's annual Photo  
were entered in the 5 categories  
entered was generally quiet.  
The slides were judged at  
the WCA Annual Meeting in  
Dave Auger. The winning slides

CELANDINE & OSTRICH FERN  
B.Ness (Flora, First Prize)





# contest



LIGHT K.Boggs (Canadian Wilderness, First Prize)

to Contest was the most successful yet. Nearly 120 slides  
egories by 15 WCA members. The quality of the photographs  
e high.

l by Barry Brown and Sandy Richardson, and were shown at  
February where the prizes were presented by past-chairman  
slides from each category are reproduced on these pages.



THE RESTLESS SEA H.Pohl (Interpretive Studies, First Prize)

# how high is the river?

A common vicissitude on weekend trips, particularly the whitewater ones, is arriving at the river to find it too low to run - or dangerously high. Ironically, it is often the rivers closest to us (southern Ontario rivers, for many of us) which are the least predictable: since the replacement of forest cover by farmland or worse, concrete covered urban zones, runoff has become rapid and violent. How fine it would be if we could phone ahead and find out what the water is doing before we drive to it.

My winter research project concerned a way to do that. Of course the most useful indicator will always be a private friend who lives next to the river, is himself an ardent canoeist, and can tell you what to expect by looking out his kitchen window. However, for most of us, on most rivers, our second line of defence against waterless disappointment is the network of streamflow measuring gauges throughout the province, and, indeed, the country.

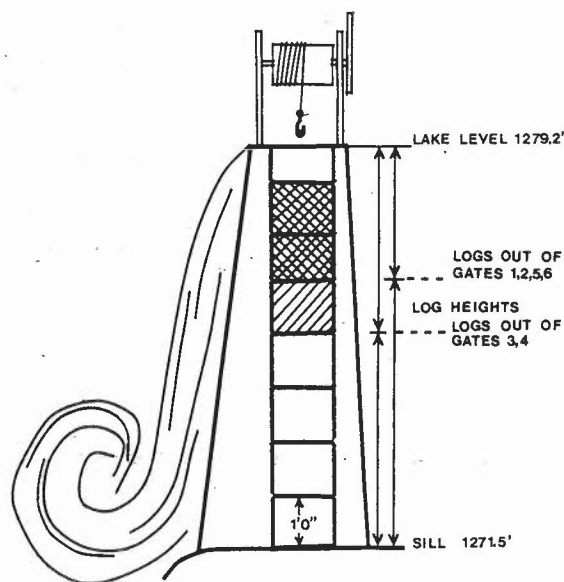
The first problem in building up one's source list is the welter of overlapping authorities who, for one reason or another, install equipment to keep tabs on a river. Below are listed some contacts for some well-known rivers, but you will notice that some rivers have no gauge on them at all. What is to prevent us - no, better: YOU - from installing a gauge of your own? Nothing; the man from Water Resources Branch said it was an excellent idea. If it is practical for you to install a large ruler on, say, a highway bridge, do so. Then, in future, you can phone an acquaintance who passed that way on the weekend: "Jim, when you passed the Black River on the way back from the Skootamata, what was it reading?" You have then only to guess what effect the intervening week will have. Or perhaps you can make friends with a nearby motel manager who thinks canoeing benefits his neighbourhood: "Oh, it's you again? Yesterday my kids were playing down by the bridge; they say it's reading 6.3."

The next problem is the infrequency of reading the gauges. If the dam at the outlet to a lake is designed to maintain the water table, it may have a gauge attached, but it may be read only, say, once a month in summer and not at all in spring. When river flow rate, not lake level, is a concern, the gauges may be read more frequently, particularly during whitewater season to provide flood warnings. Then it is that you can telephone the local office on a Thursday, say, before a weekend trip and receive data for that day or the previous one.

Ironically, modernization has in some cases reduced the recency of the data. "Staff gauges" are rulers, usually on a bridge pier or a dam, which measure the water height. If any sort of continuity is desired, the Water Resources Branch must assign a man to drop around and read it every few days. Thus someone can always be found to ask for a current reading. "Recording gauges" (found in those vertical pipe section like the ones at the bottom of Beaver Creek and the Amable du Fond) keep a continuous record automatically on a graph: if the data is being collected only for some future study, there is no need to visit them more than once a month to change paper charts; here modernization has defeated the canoeist. Still greater modernization, such as is being carried out in southern Ontario rivers where the Conservation Authorities need up-to-the-minute readings in flood season, connects the automatic gauge to a telephone line: you ask, "What is the Humber River doing now?" The man says, "Just a minute, I'll put you on hold;" he dials the black box on his other line, interprets the beeps and clicks, and comes back in a moment with "five cubic metres/sec.". Some far northern rivers, which cannot be visited conveniently for a reading, broadcast their levels to a communications satellite; here again we are fortunate.

If the figure read out to you on the phone is volume/second, well and good; if it is a level (of a lake above a dam), you must convert it to a river flow rate. To do this, you must know some details about the dam, usually, in our cases, a stoplog dam.

Example: The Galeairy Lake Dam at Whitney has six gates with up to seven square timber stoplogs/gate. The logs are 1' by 1' by 17'2" each. The concrete sill on which the logs rest is at a level of 1271.5 (probably feet above sea level, but it doesn't matter). On May 12, 1981 with fourteen logs out of the dam, distributed 2 2 3 3 2 2 by gates, the lake level was 1279.2. What was the flow in the Madawaska River below Whitney?



The head, or height of lake above height of log barrier (see Figure 1) is 3.7' in gates 3 and 4, 2.7' in gates 1, 2, 5, and 6. The gates are 17'2" wide. Now the formula used is  $Q$  equals  $3.33 H^{1.5}$  (L.L.H), where  $Q$  is the flow in cubic feet/sec.;  $H$  is the head in feet;  $L$  is the width of the gate in feet and  $H^{1.5}$  means the cube of the square root of  $H$ .

Therefore, since  $L$  equals 17.1666,  $H$  equals 3.7 or 2.7, flow in gates 3 and 4 is 398.1 cu. ft./sec., in gates 1, 2, 5, 6 is 249.6. Therefore total flow is 1795 cu. ft./sec., which for comparison purposes is 51 cu. m./sec. (1m<sup>3</sup> equals 35.314 ft.<sup>3</sup>) (Yes, I used my calculator.)

Now to convert flow readings to rapid difficulty ratings, you have nothing but your own memory and experience to guide you. We know, because we were there, what the Madawaska looked like at 1500 cu. ft./sec. last year. We also know what it was like at 380 - feeble enough to run the S-curve rapids in a 15' Springbok tub. Now we can call up the Ministry of Natural Resources this spring, ask for the lake level and stoplog configuration of the dam, and, with a few minutes work, arrive at a figure: "Higher than last Victoria Day weekend! EEK! I think I'll do a lake trip this weekend." In short, you can only rate a river with flow figures the second time you do it. Below are some flow figures on dates on which WCAers are known to have done a river last year. If you were there, you have a basis for pre-rating the river this spring. If not, this spring is the time to start your own data collection.



My own data collection began with the following reference sources:

I. Ontario: Active Hydrometric Stations

A map published by Fisheries and Environment Canada (most recent edition Dec. 1977) which shows the locations and reference numbers of active flow and level measuring stations used to collect data for Environment Canada. By no means does it include all the gauges in the province; some other authorities collecting data for their own purposes must be sought out.

II. Surface Water Data Reference Index

(1979 edition, published annually) A 300 page book from Water Survey of Canada which lists all the gauges in the country, past and present, with dates and details (such as type of gauge). Gauges no longer in use may still remain on bridge piers; perhaps you could find a local friend to read them for you. For purposes of study, data from past years for a particular gauge can be ordered. The book lists the operators of the stations, such as lumber companies, power companies, or other ministries.

III. Historical Streamflow Summary

(Published every five years). This book is published by the Water Survey, giving monthly and annual mean discharges recorded at each station. When I was researching the Ekwan and Shamattawa Rivers, I obtained a photocopy of the relevant pages only from the Water Resources Branch. Incidentally, the regional offices of the MOE will supply, on request, data on water quality in a given river: I have a list of all the bacteria found in Eels Creek over a ten year period.

IV. Location of Dams on Principal Watersheds

(1966). Two maps (northern and southern Ontario) published by the MNR showing, in general, the ownership as well as the location of dams.

V. Map from the MNR showing regional and district territories.

VI. Guide to Conservation Areas

A map from the MNR showing territories and listing addresses of each Conservation Authority.

Now begins the job of tracking down operators and readers of each river. Here is my incomplete list:

Ottawa: The flow in the Calumet Island rapids is closely related to the flow through the Des Joachim and Chenaux dams monitored by Ontario Hydro. For very recent, current, or near future flows, call the Chenaux control station (613 432-4843); for the more remote past, call Toronto (416 592-4357). Reading on Sept. 3, 1981: 540 cu. m./sec.

Petawawa: Environment Canada, Guelph (519 821-0110) reads a gauge near Petawawa by phone. They sent me a five month daily printout of flow on request. May 17, 1981: 125 cu. m./sec.

Upper Bonnechere: Renfrew Hydroelectric Commission read the staff gauge at the dam below Round Lake daily. Although they sent me the dam data (three gates, 13' wide, up to eight 1' logs in each, sill level 99.4'), they kindly converted it to a flow for me. It turned out this was useless for gauging the Bonnechere in the Park: flow out of Round Lake on May 2 (when we ran it) was nil; they estimated that inflow from all sources to the lake was 1450 cu. ft./sec. They kindly offered to provide current data at 613 432-4884.

Madawaska: Environment Canada receives real time data by phone from a gauge at Palmer Rapids; they sent me a printout. May 2: 66 cu. m/sec. May 17: 216 CMS. Ontario Hydro has a staff gauge at the Bark Lake dam, above Bell's Rapids. (For these rapids, you might ask Madawaska Kanu Camp). Ministry of Natural Resources reads a staff gauge every few days at Whitney. Dam data is given in the example above. Some flows last year: Apr. 30: not read; May 3: 690CFS; May 12: 1795 CFS; May 17: 1498 CFS; June 3: 384 CFS. Some of us were there on each of those dates.

Opeongo: The Opeongo dams are rarely altered for the sake of the fish; therefore the gauge is hardly ever read. If we want an objective reading on the Opeongo, we will have to install our own, whether at Crotch Lake, Victoria Lake or the Hwy. 60 picnic grounds.

Skootmata and Black are unsatisfactory. The gauges at the bottoms of both rivers are automatic; hence their readings are not available day to day. Most of the dams in the system are either inoperative, or used only to maintain summer lake levels and hence are not read in spring. The MNR is checking to see if they can get figures for the dam below Skootmata

Lake: they think they can't. The one possibility is the operating dam, with staff gauge, in Queensboro on the Black, which is privately owned. If you make a friend in Queensboro, ask him to check the gauge for you. If you make a friend of the owner (a Marmora lawyer who uses it to maintain water at his cottage) who knows? Maybe he'll open the dam Sunday afternoon to give you a good run.

Moir: The Conservation Authorities check the level only for a specific project (e.g. predicting a flood). They have recoding gauges at Foxboro and Deloro. I haven't found out whose is the dam at Deloro.

Crowe River - Beaver Creek: The Conservation Authorities are most helpful: they can telephone the gauge in Marmora itself. The Glen Alda (Crowe) and Beaver Creek gauges are automatic, so not available. The staff gauges at the Cordova Lake, Paudash Lake, Round Lake, and Wollaston Lake dams are read once a week normally, two to three times a week in flood season. The resource technician derives the Beaver Creek flow on Ap. 10 thus: Beaver Creek equal total flow at Marmora (2170 CFS) - Crows River at Cordova Lake (1300 CFS) - North River at Round Lake (40 CFS) equals 830 CFS. Thus we can obtain Beaver Creek, Crowe River, North River and Deer River, but not Dickey Creek.

Eels Creek and Mississauga River: Mr. Bruce Kitchen of the Trent Canal Authority provided data on these rivers, which are used to keep the canal full. The staff gauges on the dams at Mississauga Lake and Eels Lake are read 1/wk. in summer, more often in spring. There is also a flow gauge at the Hwy. 28 picnic ground. Examples:

Ap. 2	13.5	1.2
Ap. 6	9.6	2.85
Sept. 27		8.5

Black, Holland, Nottawasaga, Saugeen, South Saugeen, Teeswater, Maitland, Grand, Bronte, Oakville, Credit, Humber, Don, Highland, Rouge and other southwestern Ontario rivers are connected by telephone to Conservation Authority offices. The Saugeen Valley C.A. does not have gauges on the North Saugeen or Rocky Saugeen and they "do not recommend early spring trips since the route has been recognized for beginners and novices". Find a friend and install a gauge of your own on these tributaries.

Beaver River: Still unknown. The Thornbury dam is rarely adjusted.

Oxtongue: MNR, Huntsville controls the Tea Lake dam. It has 2 gates 14' wide, up to 9 1' logs, sill level is 2.34' on the staff gauge. Flow on the lower Oxtongue is partly contributed by Oxbow Creek, so the Tea Lake reading is unreliable. Next year, says MNR, there will be a telephone gauge at Marsh's Falls.

Magnetawan: Kashegaba Creek dam is rarely adjusted. Ahmic L. dam is read by MNR Parry Sound. Figures for WCA trips: May 30: 190, May 31 nil, June 13 68, June 27, 575.

French: For flow rates, current and past, call Mr. Gordon Simpson, Dept. of Public Works, North Bay.

Amable du Fond: The MNR Whitney makes decisions on this dam, while a man in Kiosk reads the gauge. The dam has 2 gates, 15' wide, up to 16 logs each 8" high per gate.

Spanish: The INCO dam at Bisco controls most of the flow of the West Spanish, but the East Spanish, which joins it at the forks below, is essentially free-flowing. (The MNR dam has little effect). Eddy Forest Products has dams on the tributaries: Pogamassi, Agnes, and Onaping, but their activities are not coordinated with INCO, so that all-inclusive figures were unobtainable. Joe Harris, Supt. of Power for INCO, was helpful. His figures show the contribution of the tributaries as you descend the river:

	Bisco	Agnew L.
May 23	0	1800
July 4	1000	3800

As can be seen, many different offices were very helpful to an importunate questioner. I suggest that when you are getting acquainted with a new river, you poll your fellow canoeists first about dams, gauges, and authorities, and offices second, in order that they may stay cooperative. In this way we can work toward a day when you can phone, listen to a figure, consult your trip diary, turn to your friends, and say, "Scary", "Boring", or "Just right."

John Cross

# designing a canoe

John Winters.

When I wrote the earlier article on canoe design, I was certain it would not be published. So certain, I felt safe in offering to write a sequel on the design process itself. Sandy called my bluff and now you are faced with the unhappy prospect of reading my opinionated views on the topic as well as the science. To understand what is to follow, you will need a working knowledge of boat design nomenclature. This is best gained by example, so if you will set a loaf of French bread before you and find a good sharp knife, we will begin. (When finished, you can eat the bread, so nothing will be wasted.)

If we assume the bread is a canoe and we cut the loaf down the center in a vertical plane, the resulting shape would be something like Fig.1 and would be called the profile. The top line is the sheer, the bottom is the fairbody and the bow is located at the right and the stern to the left. This convention of facing the boat from left to right is quite handy as it is not always easy to know which is which on a canoe. Now we make another cut this time horizontally as if we were making a sandwich. The result will be a waterline and would look like Fig.2. Any number of waterlines can be done but one every 3" seems to be adequate on a canoe. The most important waterline to the designer is the load waterline. This is the line on which the canoe would float when fully loaded and sitting in calm water. This line is a major determinant of the underwater shape and is essential in making the various calculations. We next cut the bread into ten sections as shown in Fig.3. We use ten sections because it will make certain calculations easier and because this spacing is very convenient for the builder in making his frames or ribs. There are other lines called buttocks which run parallel to the profile but are located at specified distances from the centerline and diagonals which run fore and aft but at angles to the centerline plane and intersect the stations as closely as 90° as possible. Buttocks and diagonals are used by the designer to assure the design is free of humps and bumps that might creep in if only the stations and waterlines were used. For the most part however, a good idea of the canoe's shape can be gotten with only the waterlines and sections.

With the pile of bread in front of you, you can see that you can trace around each piece and will get a two dimensional representation of the shape of the bread at that point. In fact, if you have kept things orderly, you can re-assemble the bread or even make a new loaf by cutting new pieces from the tracings of the old loaf that you made. The designer is

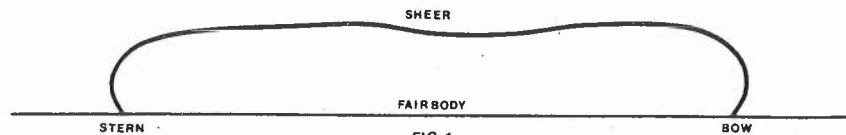


FIG 1  
Profile of 'Bread' canoe



FIG 2  
Waterline of 'Bread' canoe as viewed from above

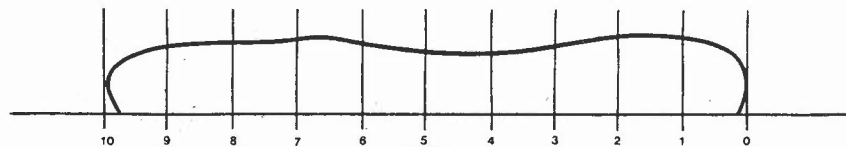


FIG 3  
Showing the division of the profile into sections for building frames and calculations

doing a similar operation except that he is pulling the shape out of mid-air so to speak and hopes the result will be just as he envisioned it in his mind when it is finally built in three dimensions. Oddly enough things usually work out quite well.

(You may now get the ham and cheese and take a brief recess.)

Some one wants to know why we have to do all this. The Indians didn't, so why should we? We don't have to and many builders don't. But, the Indians didn't always make the best canoes and for every good example, there were hundreds of cranky slow canoes built in a slap dash manner. As for the modern canoes built "by eye", their efforts frequently speak for themselves. What we hope to achieve by the design process is a good canoe, well suited to its purpose on the first try and by-pass the old trial and error routine.

Now we can start the actual design process and the first step is to determine what the intended purpose of our canoe will be. We must make some arbitrary decisions here as many of our require-

ments will be contradictory and we must judge which are most important. Were our canoe to be a marathon racer, the job would be simple. We would make the canoe as long and narrow as the rules and common sense allow. The sections would be as round as possible to reduce wetted surface and our only concession would be toward providing a certain amount of directional stability. What we want though is a tripping canoe. It must be fast but able to carry a substantial and variable load, stable but sea kindly, and easy to maneuver on rivers while still reasonably easy to hold on course on open lakes. Obviously we can't have everything, so we establish a set of parameters and requirements that will force our canoe to take a particular configuration.

The following is MY list. Yours may be different but the process is still the same.

1. Intended area of use-Canadian Shield
2. Length of trip- 3 to 14 days
3. Loading- 335lbs of crew, 25 lbs of gear per person, 2.2 lbs of food per person per day, or 400 lbs to 450 lbs.
4. Estimated average speed (not including sightseeing, poking around in coves and general goofing off) 3 knots

This doesn't sound like a very definitive list, but it is. We know that the canoe must be suitable for both lakes and rivers, it must displace at least 450 lbs without being sluggish, and it must be light enough for easy portaging as there will be plenty of that. We can further refine our list by adding a few personal desires.

1. The canoe must be light enough for easy portaging of the canoe and packs in one trip.
2. The canoe cannot be so long as to make bushwacking off the beaten track difficult.

OK, what do we have? To make single trip portages easy, the canoe will have to weigh around 50lbs which dictates "Kevlar" or similar construction which in turn dictates that the canoe have a well rounded shape to achieve panel stiffness with such materials.

We can see in Fig.B in the previous article (*Wilderness Canoeist*, Winter 1981) that the ideal prismatic co-efficient for our speed of 3 knots (.72√17) is .505. That speed is our cruising speed however and it would probably be wise to design for a higher speed for those times when one is in a hurry, like trying to beat a thunderstorm to shore. In this case, a prismatic of .53 seems to be a good compromise. Our displacement/length ratio of .44 assures of good ultra-

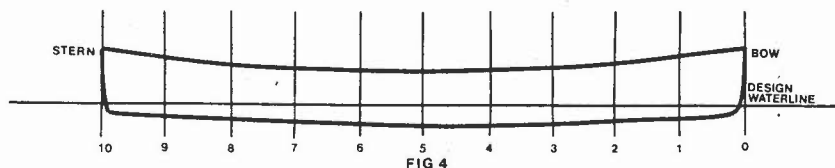


FIG 4  
Showing design grid and profile

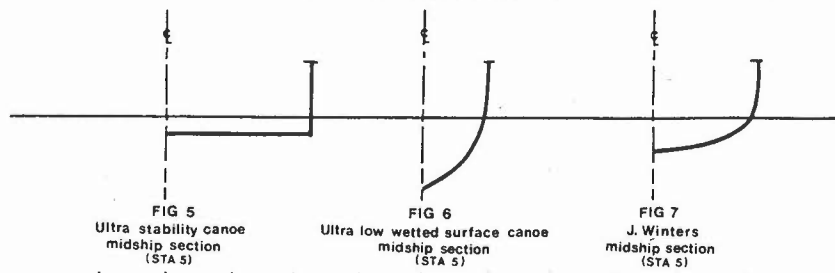


FIG 5  
Ultra stability canoe  
midship section  
(STA 5)

FIG 6  
Ultra low wetted surface canoe  
midship section  
(STA 5)

FIG 7  
J. Winters  
midship section  
(STA 5)

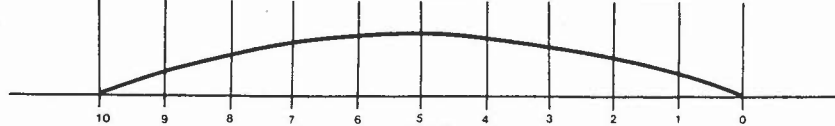


FIG 8  
Load waterline

mate speed in shorts spurts which would not be the case if we had chosen a shorter length of say 16' with a speed/length ratio of 51. (Fig. 8 makes more sense when turned on its side. It was shifted to fit the page in printing).

Once the prismatic is established, we can draw the midships section which area will be .84 square feet. How do we know that? Well the prismatic is the ratio of actual displacement to that of a prism with the same length and cross section as our canoe so,  $\frac{887}{470} = .53 = 887 \text{ lbs}$

which is the displacement of the prism, then  $\frac{887}{62} = 14.30$  which is the volume of the prism in cubic feet, then  $\frac{14.30}{17} = 0.841$  which would be the area of the cross section. In these calculations, I have used 470 as the displacement of the canoe as it is roughly in the middle of our proposed range of displacement.

We now start drawing the lines or shape of the canoe. Fig. 4 shows the grid which corresponds to the slices we made in the bread and on it I have drawn the profile. The sheer and fairbody were established, in this case, by eye but could be done more accurately by computing the pitching potential of the canoe in waves and adjusting the sheer to suit the expected bury of the hull. Under the circumstances I hardly think that is needed. Most important is the fact that the curve of the sheer is gradual and not abruptly turned up at the ends. The height of the bow at the ends is not so important as the height about two feet aft of the bow where the waves usually come aboard. The bow and stern are vertical which is in keeping with what we know about the advantages of waterline length. The fairbody line may be the most controversial. I have drawn a fair continuous line with a slight acceleration of curve at the bow. In theory, this curve should improve maneuverability while the slightly straighter aft line should allow added directional stability in open water. The whole thing is arbitrary although there is a fund of knowledge that could be tapped if one thought there to be a pressing need. While there may be some debate as to the value of curving the fairbody for performance reasons, there is no question that the curved fairbody will maintain its shape better than a straight keel which tends to hog with remarkable ease. That alone would seem to be a good reason for the curvature.

The next step is to draw the midships section. We have a lot of choices, everything from the ultimate in stability in fig. 5 to the ultimate in low wetted surface in fig. 6. Shape 5 has 4.6' of wetted surface at the station and fig. 6 has

2.3' yet they both have the same area and both would give a prismatic of 0.53 on a 17' canoe. Obviously a compromise is needed and it may even be necessary to adjust the fairbody to accommodate the depth of section that we choose. Keep in mind that beam is another control and we would not want it to be too extreme in either direction. Too wide a beam will result in very shallow draft and high wetted surface with a very quick motion and high initial stability but an abrupt loss of stability at a critical angle. Too narrow a beam will result in deep draft, low stability and poor maneuverability. Common sense and past practice would seem to be the best guides. After a lot of trial and error in which the eraser will get a good workout, you might come up with something like fig. 7 which has a wetted surface of 2.9' at the section and is not extreme in any way.

At this point, using the waterline beam developed in the midships section, we draw the load waterline. The earlier article discusses possible shapes but the truth of the matter is that one must draw upon a lot of trial and error experience to be able to draw a waterline that will give the proper displacement in the finished design. With that done, we have three points that each section must pass through; the waterline, the sheer, and the profile. From this point on is a constant series of trial and error drawing of sections, buttocks, and diagonals to achieve fair lines that intersect all lines at the correct points. The procedure for doing this is best explained by one of several books on Naval Architecture (I suggest Skene's Elements of Yacht Design as being the best and most readable). It is a bit involved and I have accumulated a few bad habits which are best not passed along. The important point is that the resultant lines be fair and have no odd humps and bumps that would look strange on the finished canoe. A competent designer can produce a set of lines with all the attendant calculations in around eight hours.

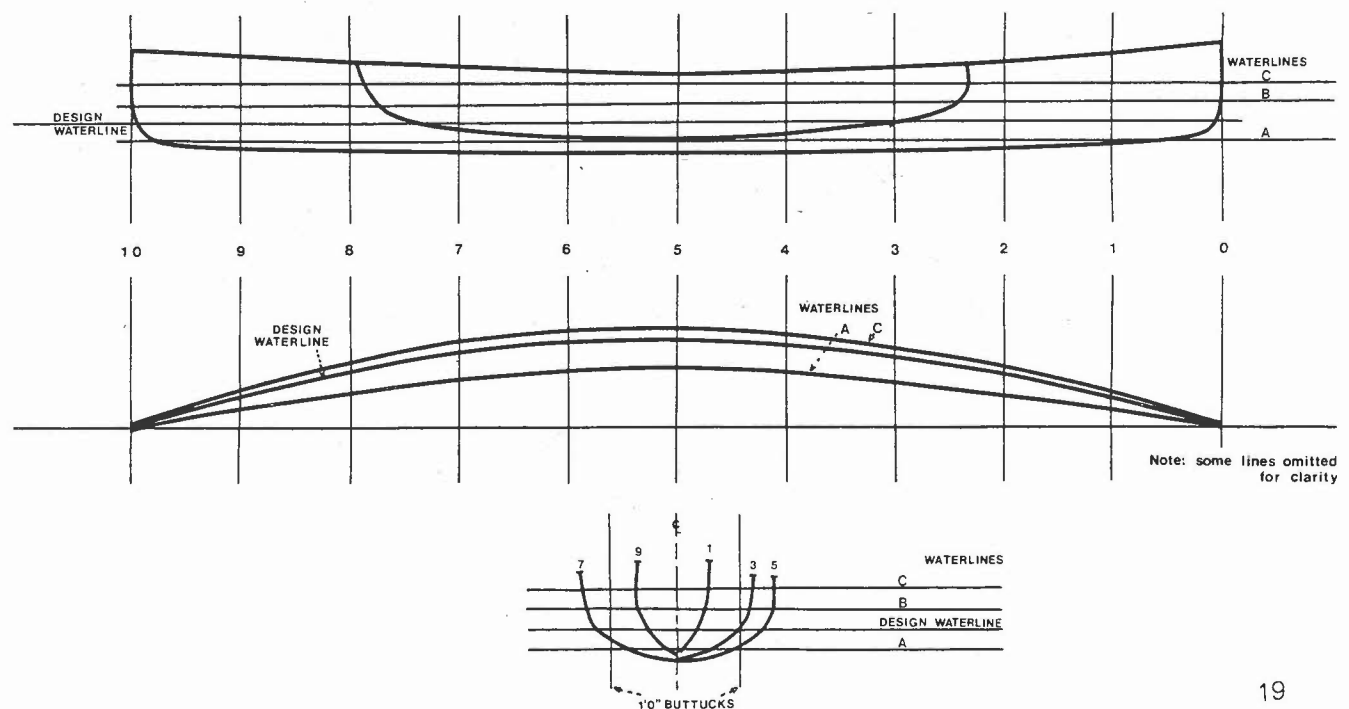
Fig. 9 shows a completed set of lines ready to be checked for displacement. For clarity, I have deleted a few lines. Normally a much larger scale, say  $1\frac{1}{2}$ " to the foot, would be used to improve accuracy and clarity. Displacement is checked by measuring the area of each section and plugging the information into something called Simpson's Multipliers to get the functions of the areas, adding the functions together, multiplying by  $\frac{2}{3}$ , multiplying by the inverse of the scale of the drawings squared (if you use a  $\frac{3}{4}$ " scale that would be  $\frac{16}{9}$ ), and multiplying by the station spacing and the result will be the displacement in cubic feet... and the knee bone's connected to the leg bone. Believe it or not, it works every

time, usually, well maybe. A good programmeable calculator is invaluable. Suppose the answer doesn't match the displacement you planned? It's back to the drawing board to fine down the lines if the displacement is too high and the reverse if too low. Remember, however, that you should not touch up the midships section in this process as you will change the prismatic and have to start from scratch again.

Everything came out as planned? OK, you are finished, or are you? There are two other calculations that could be made. The first is the longitudinal centre of buoyancy which tells if the canoe will float on its lines when loaded and the "pounds per inch of immersion" which tells how much the canoe will sink with a given overload. I tend to think that neither is needed by the designer as there is little prospect that he will have made any gross mistakes after having gotten this far. On the other hand there may be some value in the owner's knowing this information as it may save him a certain amount of trial and error in establishing how the canoe should be loaded. I think we can leave that kind of thing to the real diehards who like math more than I.

I know that this has not been a comprehensive discussion of canoe design; space and my narrative abilities wouldn't permit such a thing. Nevertheless, I hope you have gleaned a few interesting things from the articles. Most important, I hope it is apparent that good canoes are not mystical creations but rather, are the product of careful thinking or just plain luck (in some cases) and there is no reason to rely on luck. Simply put, no builder should produce a canoe without going through the design exercise to assure that what he is building is going to be suited to its intended use. I will grant that the design process can be circumvented, but why should it? We have superlative materials for the construction of canoes that are the product of good solid scientific research. Is there any reason why our canoes cannot be the product of similar thinking in the design stage?

FIG 9  
Completed lines (more or less)





# white-water practice weekend

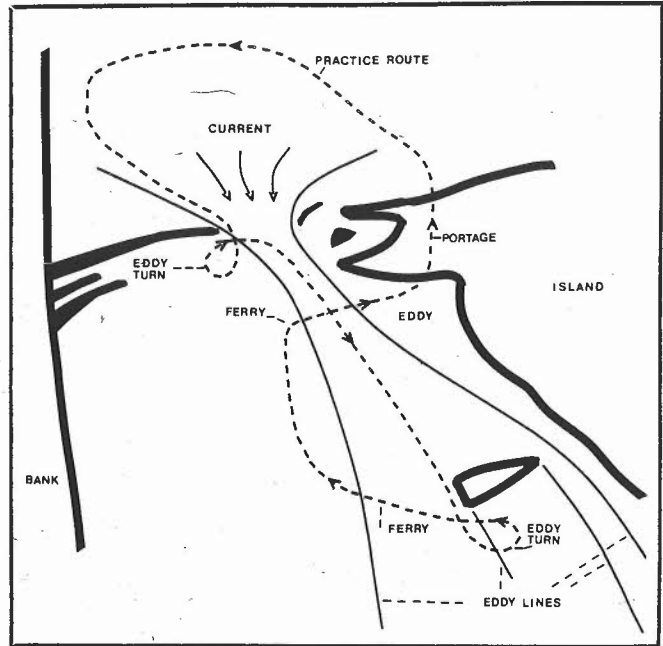
an organizer's view

George Haeh

For the past few years, certain WCA members had offered a white-water workshop at Palmer Rapids. I attended two of these workshops myself with family members. Over twenty canoes participated in each workshop. Although it was an excellent occasion to meet many other WCA members, my principal impression was that the sheer number of participants created an onerous workload for the organizers. I also felt that the format and site failed to provide a top-quality training opportunity for the large and varied group that showed up. Lower Palmer Rapids demands little of a canoeist; the Upper Rapids are often more a test of courage and aiming one-self than of skill and judgement.

Last August I offered a white-water workshop at Aumond's Rapids to no more than four canoes. The stringent limitation of numbers was intended to make the workshop enjoyable for myself. Aumond's Rapids was chosen because it offers a variety of situations that can be used to challenge and develop skills. Also it is considerably more tolerant of mistakes than Palmer Rapids. The workshop was offered to canoeists "with white-water experience" because there is no time in a weekend to also teach the basic fundamentals.

During WCA outings, I have observed common weaknesses of technique in many members; so I decided to devote the workshop to overcoming these weaknesses. The workshop covered: canoe-over-canoe rescue, low brace, reading the water, teamwork in rock-dodging, eddy turns, ferries, and backferries. It turned out that one of the participants is herself a flat-water canoe instructor. She has undertaken to write a report on this workshop; her comments should be interesting.



WORKSHOP SITE AT AUMOND'S RAPIDS



At the top of Aumond's Rapids is an island that once made a fine campsite. (Because it is suffering from overuse, the MNR has closed it to camping. If anybody wants to run a workshop here, call me for the location of a very convenient and reasonably attractive alternate campsite.) The chute on the right bank offers an excellent training situation. There are also two other rapids just below the island that offer many other situations depending on water levels. As mentioned before, the rapids are reasonably benign and it would take exceptional clumsiness to break a boat or to get injured there.

The first lesson was the canoe-over-canoe rescue. All participants were required to do it until they got it right. A variety of canoes was available and participants were given the opportunity to try the technique on progressively more difficult canoes. This tactic allowed weaker participants to work their way up. It was emphasized that skill more than strength was what was required. The reason for making this the first lesson was to give the participants a self-rescue capability as soon as possible, since the organizer can not be expected to be everywhere at once to do all the rescuing.

The low brace was next. I feel that this stroke receives far too little attention; it has great power to keep you in your boat when you find yourself in unexpectedly difficult circumstances (as happen to all of us from time to time). Participants were asked to lean over, take a drink or water, and recover with a low brace/back-sweep combination. Only one swam. This was a solo exercise for obvious reasons.

Next came a lesson devoted to the teamwork required for successful, crunch-free rock-dodging.

## a participant's view

Betty Cook



As with the previous exercises, this was done first in still water. The principle that once past the rock, the bow paddler must bring the bow back towards the rock so that the stern can get the rest of the canoe past the rock was relentlessly beaten into their heads. People must understand that the bow's failure to realize that there is a lot of boat behind him and that he must help the stern get his end around, is a major cause of getting canoes stuck on and wrapped around rocks. This exercise was later repeated in moving water once it was made sure that everybody understood the teamwork required. During this exercise the organizer stood on the rock to coach and to make sure that no boats got wrapped around the rock in moving water.

After lunch they were allowed into a rapid. Rather than simply bombing down the chute for a roller-coaster ride, they were instructed to eddy-out right just below the ledge, do a peel-out into the main current, cross it, eddy-out left behind a rock, ferry to the left, float up the eddy, ferry again through the stronger current to the very short portage; and do it again. The difficult part was making the first eddy just below the ledge. Reading the water was emphasized repeatedly, but only one participant ultimately twigged to the fact that the current flows at a sixty degree angle to "downstream", and that to make the first eddy without enormous exertion one had to flirt with the ledge. Because of having two eddys and two ferrys to perform, they were able to practice on both paddling sides. The shortness of the portage allowed several runs, making it possible to iron out mistakes.

The next morning was given to backferrys. There are two main principles: the stern must be unweighted so that it won't be swept around; and the role of the bow and stern reverse. The bow paddler must use the steering strokes normally used by the stern, while the stern simply uses power strokes with the occasional draw or cross-draw to initiate a turn. If the bow paddler abdicates his steering responsibility, the stern must devote nearly all his muscle to keeping the boat pointed in the right direction - this muscle may be urgently needed to keep the boat away from rocks, waterfalls, and other nasty things. Unless King Kong is paddling in the stern, it is better for the bow to steer in a backferry. The backferry was successfully mastered by everybody in the heavy current.

In the afternoon, the participants were turned loose to play in the Lower rapids. Comments from the participants was enthusiastic. I plan to offer one or two such workshops this summer. Hopefully other WCA members will offer similar workshops. I had a very enjoyable time and other organizers may enjoy it too.

I owe Bill Mason many thanks for the excellent exposition in his book, Path of the Paddle. I have shamelessly borrowed from his book for the workshop, and for this article.

The WCA whitewater practice weekend was held last August at Aumand's Rapid on the Madawaska River. We know this article is late for last year - but it's early for this year, with canoeing just getting underway.

The weekend was given by club member George Haeh, and was a two-day instruction session on this rapid and the one below. The seven participants got what they came for - instruction and experience in most whitewater manoeuvres, in an informal setting, and under the instruction of an experience canoeist.

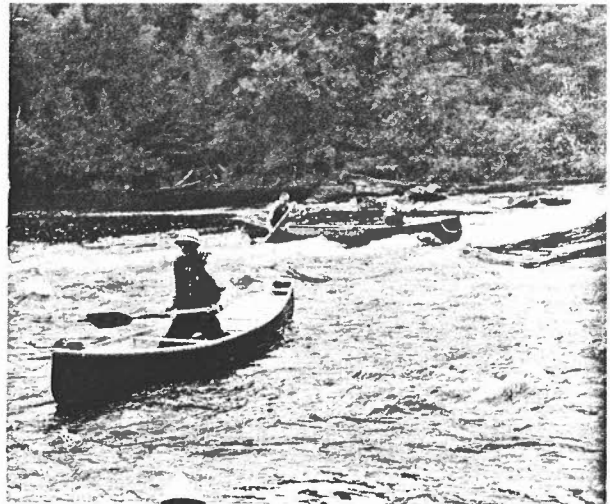
Saturday dawned grey and mucky, as we assembled on the site, but the weather was warm enough not to cause discomfort. We complained about the clouds, until we realized there were torrential rains everywhere else in Ontario that weekend, and we didn't get anything but sprinkles.

The session began on the calm water above the rapid, on Saturday noon, with four canoes holding seven people, and George the instructor.

Here we practised manoeuvres such as canoe-over-canoe rescues, and bow-stern co-ordination (turning and steering), - all best learned on flat water. We practised running at George and then turning (or, rather, first turning), to increase our manoeuvring ability. We also practised taking a drink while bracing and some of us drank more than others!

After lunch, and on Sunday morning, we transferred these skills to Aumand's Rapids, a simple two-step rapid consisting of a drop-and-shelf, and a rock. Here we practised many skills, including running it, ferrying, back ferrying, eddy turns, peeling out, and some soloing, varying our course through the rapid. It was just a rock-hop portage to get back to the beginning so we were able to do it many times.

We learned that ferrying involves traversing the rapid, if it is necessary to alter ones course side-to-side; and an eddy turn is the process of pulling in behind a rock, where the water is calm, for a breather. So, it was a good chance to become familiar with the characteristics and feel of moving water, and some of the theory needed to paddle in it successfully. That evening we spent relaxing and chatting over our Coleman stoves (weight was not a problem on this trip.)



On Sunday afternoon, we tried the longer, rockier swifts just below Aumand's Rapid. This required ferrying, and offered plenty of opportunity for eddy turns. In fact, eddy-hopping was the name of the game on the way up, which we had to do in the water, as there was no portage available. Each canoe did this a few times, before we set off for home.

So, all in all, it was a useful session which ought to transfer itself to the paddling we do this season. I think all concerned were able to learn something to enhance their safety and ability in white water so the session was a good idea. At the very least, when somebody yells "Eddy!", we won't turn around to find him.

# noire river new years

John Cross

Last year's Noire trip was distinguished by the lowest temperatures we had ever experienced; naturally, this year we came well supplied with Polar wax. This year, the thermometer chose to do a Jack-in-the-box act, so our failure to stock up for all conditions was implicitly rebuked.

After a night in a Fort Coulonge motel, we drove up to the Black River Inn, the head of navigation on the Black for most vehicles. So efficient were we (on the trail by 8:50) that Dave felt emboldened to try the scenic route into his camp. The snow was nowhere deep, but what there was was fluffy and fresh: with the temperature at  $-3^{\circ}$ , a perfect blue wax day. Trails to Green Lake, which drains into the nearby Noire River, were broken as usual by snowmobiles, but beyond that point we were following tracks broken by two or three skiers - the very best kind. One woman we ran into, out for a morning ski while her husband slept in, told us that a party had travelled up this way, camping out.

The chain of lakes up beyond Moiseau seems not to be known to snowmobiles; the trails are not suitable for them, and they feel quite remote, except for the reminders of human interference in the shape of exposed deadwood on the shore: a consequence of the water level fluctuations caused by small dams.

We proceeded cautiously for fear of thin ice and slush. A long period of thaw had been followed by only a brief and not very cold freeze, accompanied by a fresh fall of insulating snow. Fortunately Dave, as guide to the party, made all the slush discoveries for the rest of us. When our skis got wet we were usually able to scrape off the slush by moving fast.

We ascended a long chain of lakes and portage trails to Big Indian Lake, where we had lunch in a trappers cabin. The other ski party had spent the night there and then turned east. Signs of other travellers from the west (direction of Dave's camp) were found in the shape of a saw, hammer, and grub-hook, all swiped from the camp. We left them there, since the saw in particular could be useful in an emergency on a cold day for skiers: the cabin has a rough oil-drum stove. The remainder of the distance to the 50-50 Hunt Camp is through a snowmobile - and almost skier-proof tangle, followed by a hilly trail.

It is an enormous relief to be assured to a comfortable camp, pre-cut dry firewood, warm beds and stored food on a backcountry ski trip. To travel so far, carrying only day-packs is akin to having one's cake and eating it. Food and sleeping bags had been brought up and stored in the fall. Among the items which seemed to have been very well stored was the honey. Rob and I felt like a spot of tea, so we searched the food boxes (the others drying out in the bunkhouse) till I found a spice bottle filled with a viscous, almost clear liquid. Fine! We poured a bit of honey in each cup, poured the tea, Rob took a mouthful and...Glub! Bubble! Rush for the door! Ppppppppppp! Rob returned, blowing bubbles, to describe how liquid dish soap tasted in tea.

The Pembroke weather prediction (colder with flurries) was confounded by the next day: the thermometer rose to plus  $2^{\circ}$  with wet snow alternating with rain. Naturally only a few had yellow wax, which they kindly lent out. Now while yellow wax was the least of evils, it could not be called a complete success. Whether the under-surface snow was too cold, or whether we spread yellow on too generously, the snow tended to clump up underfoot. Considerable effort to get sliding could remove the stuff and permit sliding down hills, or gliding on the lakes, but a halt, or a firm downward step, would start the clumping over again. We got what use we could out of it by walking straight up steep hills without the herringbone, or straight down them without the snowplough. Slush on the lakes was heavier than ever. We reached the portage to Lake a la Marte, but found time so far gone, and us so wet that it seemed wise to abandon more distant goals for the day.

The return trip was made difficult by some new, cold snow which began to fall and drift into our tracks in the rapidly rising wind. Since the yellow wax had not yet worn off, clumping became impossible to avoid, and so we often stopped to scrape our skis. The darkness came quickly because of the overcast, and gave us cause for alarm, but was eclipsed by an incident just before reaching camp. A large pine tree, which had lived in its isolated thicket for decades, had respectably died and stood dead for, say, ten more years, never seeing a traveller except one or two fishing or skiing parties per year, chose to fall across the trail at the exact moment when the one-ski-party-per-year was passing under it. Ken had to jump lively to avoid being skewered by its thick, down-stabbing branches.

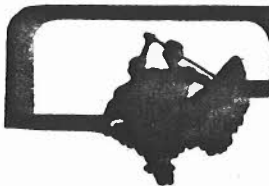
The temperature dropped rapidly to  $-23^{\circ}$ . Given the sopping wet state of the woods in the afternoon, I felt cause for a pessimistic assessment of tomorrow's conditions. The surface would be hard ice on which only blue klister could grip, and, or course, none of us had the stuff. Because we all loathed klister, we tried to convince ourselves that we wouldn't need it, and so left it behind. To our delight, a light dusting of new snow overlay the ice next day, so we were able to use Polar wax.

In bright sunlight and frigid cold, we set off this day to explore a new loop through some rarely visited lakes. We had to bushwhack into (little) Indian Lake, and found a mysterious line of blazes down the hill leading out of it. The lakes in this part of Quebec lie in hollows among hills which crowd close in to the shorelines, and which delight the eye after the comparatively flat relief of most of Ontario. The frozen slush offered fast skiing at the cost of worn bottoms, and in the delight with the weather and our accomplishment, we felt that this was skiing as it should be.

Given the long drive to Toronto, we hoped to exercise a fast getaway in the morning. All was prepared in advance, so that we could be on the trail by 8:00, but we had to stop a few minutes for a rewax. The thermometer, doubtless knowing we had been using Polar and Special Green, climbed up to  $-5^{\circ}$ . The trail out was a shortcut, and had been broken by snowmobiles. We encountered one setback, in the shape of a cracked ski on a downhill run, which Ken mended with tape wrapped shingle fashion, and a delay in the flooded border of Green Lake. An ice jam on the Noire backed up Green Lake Creek and had begun to flood the ice by the time we got there. Since we were only fifteen minutes from the car, we elected to charge through and accept wet feet.

This, the best Noire trip so far, was as Dave said, "more fun than an \_\_\_\_\_!"





Again this spring we are offering a wide variety of canoeing and wilderness experiences from which, it is hoped, everyone can select something to his taste. We have tried to keep trips small and informal in order to enhance the wilderness experience, as well as for safety reasons. Also, for environmental reasons we are encouraging members to cook on portable stoves rather than using campfires (especially on the Madawaska River where environmental damage has been particularly severe).

Some of our outings have been designated "exploratory" to indicate that the organizer has not travelled the route previously. Participants should note that this increases the level of difficulty of the trip for all concerned.

As you know, our program has to be put together some time in advance of publication. The scheduling of specific trips is done in anticipation of "normal" weather patterns. It appears now that we may be facing a later than usual Spring, as a consequence the timing of some of our earlier trips may have to be chan-

ged in the light of existing conditions. Check with the organizer shortly before the date of an outing you have signed up for just to make sure it will proceed as planned.

Also, we wish to remind you of the additional safety hazard posed by the icy waters of early Spring which can transform a harmless unscheduled swim into a dangerous emergency.

Our trip guidelines, safety rules, and river rating system are included again this year in this issue, and everyone is asked to read it carefully before participating in an outing. Also please remember that the trip organizers are not paid professionals, but fellow members volunteering their time to help put a trip together; and that each participant is responsible for his own transportation, equipment and safety (trip organizers will, however, endeavour to match up people who may be missing either equipment or transportation).

We sincerely hope that all of you will have a safe and enjoyable season of canoeing and wilderness experience.



If we are efficient there will be enough time to run the Humber from Hwy 401 to Dundas Street.

Because of the cold waters and the long day intermediates and experienced paddlers are preferred. A novice with whitewater training will be accepted if they can be paired with an experienced paddler.

River difficulty: Credit 2-3  
Humber 2-2½

Limit of 5 canoes

#### April 9-11 BEAVER CREEK, DICKEY CREEK AND CROWE RIVER

organizer: John Cross 416-487-0678  
book promptly to permit organization of car-shuffle.

This will be a rigorous whitewater trip which will tackle the Beaver-Crowe system in a new direction. If snow-conditions forbid it, it will be moved to a later weekend. Suitable for advanced canoeists. Limit 4 canoes.

#### April 10 HUMBER RIVER

organizer: Stewart McIlwraith 416-698-1519  
book between March 29- April 4

At low water the river is grade 1-2, at high water it reaches grade 3 in the odd spot. The river passes Parkland and Golfcourses as it flows from Hwy 401 to Dundas Street. A pretty trip with almost continuous rapids. For intermediates or novices with an intermediate partner. Limit 6 canoes.

#### April 17-18 SALMON RIVER - MOIRA RIVER

organizer: Glenn Spence 416-355-3506  
book between March 31- April 10

Once again, as so many times in the past, the redoubtable Glenn Spence offers intermediate paddlers a chance to join the annual Spring migration in the Belleville - Marysville area. Good scenery, good paddling and short portages will be on tap. The Salmon in high water offers a consistent gradient and numerous limestone rapids with strong current and large standing waves, while the Moira has many flat sections interspersed with steep drops that require precise manoeuvring. If so desired participants may camp in the organizers backyard. Limit 5 canoes.

#### March 27 GRAND RIVER

organizer: Randy Berg 416-383-5703 (H)  
519-623-1550

book before March 20

The first chance to get the canoe back on the water. The Grand River between Cambridge and Paris offers some grade I rapids and swift current.

Level: Novice, limit 5 canoes.

#### March 28 SPEED RIVER

organizer: Herb Pohl 416-637-7632  
book before March 21

A chance for an easy and leisurely paddle from Guelph to Cambridge with a few swifts here and there.

For Novices, limit 5 canoes.

#### April 3 LOWER CREDIT - HUMBER RIVER

organizer: Norm Coombe 416-751-2812  
book after Mar 12

Both these rivers offer almost continuous rapids in the area we will cover. Starting at Streetsville early Saturday morning we will run the Credit to the Hydro-lines just south of Dundas Street

April 17-18 BAYFIELD RIVER - MAITLAND RIVER

organizer: Herb Pohl 416-637-7632  
book before April 10

The Bayfield River descends 60 m from a point just below Clinton to Lake Huron, a distance of 23 km. It is only navigable for about three weeks of the year; because it runs in a very confined valley the paddler has to be particularly alert in looking out for sweepers and jams along the way. The Maitland is an excellent river for practicing ferrying and general whitewater skills on the almost continuous limestone rapids which, at high water levels, tax the skills of better than average intermediates. Participants can camp at a local conservation area or may decide on a motel if the weather is too miserable.  
Limit of 4 canoes.



April 24-25 UPPER MOIRA - SKOOTAMATTA - BLACK

organizer: John Cross 416-487-0678  
book before April 17

If water levels and temperature permit, we will try the hitherto unexplored Upper Moira, and one of the others. Otherwise its back to the (ho-hum) Skootamatta to look for some of the gray hairs my canoe lost last year. An advanced whitewater trip.  
Limit 4 canoes.

April 24-25 BLACK RIVER

organizer: Karl Schimeck 416-222-3720  
book between March 24- April 12

We will put in at Vancoughnet and make our way to Washago. There are several rapids and a few portages along the way. Because of the early season the organizer has classified this an intermediate trip.  
Limit 4 canoes

April 25 ANSTRUTHER LAKE LOOP

organizer: Rob Butler 416-487-2282  
book between April 14-22

This 28 km one-day loop involves traversing nine scenic lakes north of Peterborough; suitable for novices or better in good physical shape.  
Limit of 4 canoes.

April 25 LOWER BLACK RIVER

organizer: Bill King 416-223-4646  
book between April 1-18

A gentle trip through pretty countryside near Washago. At high water there will be at least one portage and some areas of moderate sized waves. Suitable for families and beginners with some sense of adventure. Trip time is about 4 hours.  
Limit 6 canoes

May 1 MISSISSAGUA RIVER

organizer: Dave Auger 705-324-9359  
book between April 10-24

The river traverses typical Canadian Shield country and provides a blend of flat water and short challenging rapids. Easy portages make it possible for less experienced participants to pass up the more demanding runs. For intermediates, limit of 5 canoes.

May 1-2 BONNECHERE - MADAWASKA

organizer: Tony Bird 416-421-3451  
book between April 12-22

This weekend will consist of two one-day trips. Saturday will be spent on a section of the Bonnechere in Algonquin Park. This is a narrow river which runs through attractive hilly terrain. There are a number of long sets of rapids as well as waterfalls and scouting, because of the overgrown banks, is not always easy. Sunday will be spent on the Madawaska between the town of Whitney and the village of Madawaska.  
Suitable for advanced canoeists.  
Limit 4 canoes.

May 2 HEAD AND BLACK RIVERS

organizer: Bill Ness 416-499-6389  
book between April 11-25

This will be a leisurely day trip starting on the Head River, northeast of Sebright. From the Head's confluence with the Black we will continue downstream to just east of Washago. These rivers feature some good, short drops with moderate sized waves separated by enough flat water to give you time to relax between runs. For intermediates or better.  
Limit 6 canoes.

May 8-9 MISSISSAGUA RIVER-UPPER EEL'S CREEK

organizer: Bill Ness 416-499-6389  
assistant: Jim Greenacre 416-759-9956  
book between April 18-26

The Mississagua River, north of Peterborough, tumbles from its source in Mississagua Lake south to Buckhorn Lake in a series of scenic falls and rapids separated by sections of quiet water. For those with good whitewater skills it makes for a challenging, strenuous trip of about six hours. Upper Eel's Creek has more frequent rapids which are slightly more difficult. Participants can sign up for either day or both. The group may camp overnight, motel, or we may book a local housekeeping cottage.  
Suitable for intermediates, limit 5 canoes.

May WHITEWATER TOUR

organizer: Penny Clarke 416-921-0047  
associate: Cameron Hayne 416-924-989  
book as soon as possible

Instead of doing several rivers on successive weekends, this trip will remain in central Ontario for one week around the beginning or middle of May. Included in our travels may be sections of the following rivers: Opeongo, Skootamatta, Bonnechere, Black, Missisagua, Madawaska, Petawawa and Eel's Creek. The exact dates and sequences of rivers will depend on the interests and availabilities of trip members. Intermediate to advanced skill in open-canoe whitewater is suggested. It will be possible to participate in all or just part of the trip. No more than 5 canoes at any one time. Those interested in the trip will meet to put together the itinerary.



May 15-16 AMABLE DU FOND

organizer: Tony Bird 416-421-3451  
book between April 26-May 6

The Amable du Fond runs from Kioshkokwi Lake in the north of Algonquin Park to the Mattawa River. It contains a number of long sets of rapids and a spectacular set of falls. If water levels are high, the river offers a challenging run. Suitable for advanced canoeists. Limit 4 canoes.

May 15-16 MADAWASKA RIVER

organizer: Joe Keleher home 705-436-1300  
work 416-675-5800  
book after April 15

The trip will start at Palmer Rapids and finish at Highland Creek. This will allow for a short flatwater warmup before we get to the famous and challenging Snake Rapids. Spring waterlevels will demand intermediate to experienced skills. Because of the heavy recreational use of this river, it is suggested that campstoves be used for cooking purposes. Rapids on the river are rated 2-3. Limit 4 canoes.

May 15-16 SKOOTAMATTA RIVER

organizer: Karl Schimeck 416-222-3720  
book between April 15 and May 2

This small river runs through typical shield-country, its numerous sharp drop-offs are noted for their canoe-puncturing capacity. This is an exploratory trip for the organizer and is experienced paddlers, or intermediates with an experienced partner only. Rapids are grade 2-3, limit 4 canoes.

May 22-24 FRENCH RIVER MOUTH SAILING WORKSHOP

organizer John Cross 416-487-0678  
book before May 15

If the weather is right, we will experiment with jury rigs which beat upwind. If not, it will be canoeing as usual among the islands in Georgian Bay. Suitable for competent novices willing to trip efficiently. Since no expert instruction is provided, inventive thought and reading must be done beforehand.

May 22-24 SAUGEEN RIVER

organizer: Jan Tissot 416-489-5032  
book after April 15

This is an excellent "first" rivertrip for whitewater beginners and intermediates. Saturday and Sunday we will travel the lower Saugeen. Fast water, grade I and occasionally grade II rapids, tight corners and fallen trees will make this overnight camping trip very interesting. We will cover about 80 km without portaging. Upon leaving Walkerton the river takes on the appearance of a wild northern river, cutting through glacial deposits forming banks 30 m high or more with ever changing shoreline from high sandy banks to dense woodland. For those who choose to challenge the slightly more difficult upper Saugeen on Monday, we will run with empty canoes from Durham to Hanover, an exciting trip for intermediates. A little whitewater and natural hazards require precise maneuvering in the fast current. Approximate distance is 30 km without portage. Limit 6 canoes.

May 22-24 BILINGUAL EXCHANGE TRIP IN THE CROW RIVER-MOIRA RIVER WATERSHEDS

organizers: Gord Fenwick 416-431-3343  
Dave Berthelet 819-771-4170

book between April 1-16 by phoning G. Fenwick  
This three-day excursion will be an exchange trip between the WCA and Amis d'Eau de Varennes from Quebec. The area of the trip is approximately 350 km west of Montreal and 200 km east of Toronto. The trip will be on several rivers, with many rapids to negotiate and will involve some portaging. It will be run as a bilingual trip with participants speaking both French and English at various times. We will have time to practice our canoeing techniques and hope that younger members of both clubs will take this opportunity to get together and share a great experience. Group limits to be determined by organizers.

May 29- 30 OPEONGO - UPPER MADAWASKA

organizer: Graham Barnett 416-654-9805

book between May 13-20  
If the waterlevel is right (moderately high) the Opeongo offers an enjoyable run with ledge rapids and continuous whitewater. We will paddle it on Saturday from Shall Lake to the town of Madawaska. On Sunday we will negotiate the challenging rapids and portage the spectacular waterfalls of the Upper Madawaska from Whitney to the Shall Lake road. This trip is rated for advanced paddlers only. Limit: Four canoes

May 29-30 UPPER UPPER MAGNETAWAN

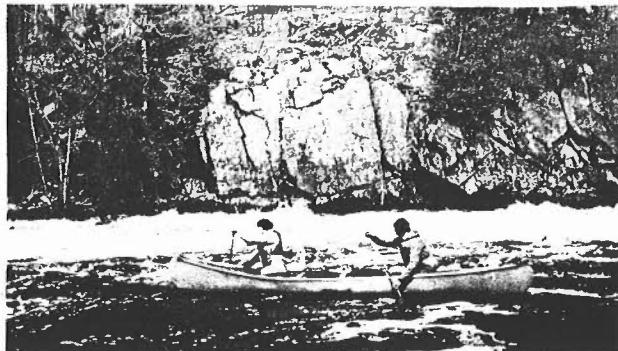
organizer: John Cross 416-487-0678  
book up to two weeks before

In the 1820's, the British army checked out the Magnetawan-Petawawa as a possible trans- Ontario canal route. We will find out the doubtless very good reasons for which they rejected it on this exploration trip from Algonquin Park to Hwy. 11. An efficient intermediate trip. Limit: four canoes

June 5-6 OPEONGO - UPPER MADAWASKA SOLO

organizer: Dave Berthelet 819-771-4170  
book between May 24-28

Here is another chance to get some exciting action as well as a look at some very nice scenery (if you find time to look around). This outing is intended for advanced solo-paddlers only. Limit 5 canoes.



June 5-6 UPPER MAGNETAWAN

organizer: Bob Almack 416-481-3778 (H)  
416-751-8351 (B)  
book between May 17-27

The trip from Ahmic Lake to Wahwashkesh Lake is for naturalists with some whitewater experience. Last year those on this trip saw Bald Eagles, thirteen species of warblers and other wildlife. Bring your binoculars and camera on this lightly travelled and scenic river. Suitable for intermediates, limit of 4 canoes.

June 12-13 ALGONQUIN PARK LAKE LOOP

organizer: Graham Barnett 416-654-9805  
book by June 3

The trip will take us from Source Lake to Canisbay Lake. The total distance we'll cover is relatively modest, but there are several portages of more than one km in length. One of the reasons the organizer wants to go there is to see what the route looks like in the snowfree season. Suitable for novices. limit 4 canoes.

June 18-20 BIG EAST LAKE

organizer: Isobel and Tom Boardman 416-481-4042  
book between June 1-10

We'll do the Bent Shoe Loop; relaxed paddling with stops to look at unusual flowers and plants as well as observe nesting birds. There are several easy portages, suitable for novices. Limit 4 canoes.

June 19-20 FRENCH RIVER UPSTREAM WORKSHOP

organizer: John Cross 416-487-0678  
book up to one week before

Omer Stringer once said that running rapids downstream was like being flushed down the toilet; going upstream was the real test of skill. We will try to develop our abilities poling and lining up the French River, which

is one of the more forgiving rapid-rivers around. No expert instruction is provided - read and think about what you will do before the trip. Some experience in how canoes behave in fast currents is necessary. Limit of 4 canoes.

July 1 or 2-4 FARM CREEK, ISLAND LAKE AND BEYOND.

organizer: John Cross 416-487-0678  
book before June 23

Farm Creek, flowing into Lake Wahwashkesh, looked quite sizeable last year at its mouth. We will attempt to ascend it to Island Lake and work through many other lakes back to the Magnetawan River. This region is very little travelled, so where we go will depend on what we find. There will undoubtedly be some bush-whacking portages. Although the canoeing will be mostly flatwater, advanced tripping and portaging skills will be needed, as usual on exploration trips. We will also scout out possible winter campsites and routes to extend the usual Sucker Creek-Canal Rapids New Years trip. No more than 4 canoes.

July 10-11 ANSTRUTHER LAKE LOOP

organizer: Joyce Peterson 416-694-1398  
book between June 23-30

This relaxing two-day trip takes you through nine scenic lakes north of Peterborough. Suitable for novices, limit 4 canoes.

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LONGER SUMMER TRIPS

July 10-25 UPPER MISSINAIBI RIVER

organizer: Bill Ness 416-499-6389  
book as soon as possible- must be before June 1

Our trip will follow this historic waterway for 236 km. from its source in Missinaibi Lake north to Mattice. Along our route we will view some fine Indian Pictographs, explore the sites of abandoned logging camps and a Hudson's Bay Company post; last but not least, run some exciting whitewater. There is an excellent chance that we'll see Moose in the Peterbell marsh. Intermediate canoeists to a maximum of 4 canoe-crews.

June 18-July 11 (tentative, lets discuss)  
OTOSKWIN AND ATTAWAPISKAT RIVERS

organizer: Ralph Hart 416-823-9040 (H)  
416-278-2144 (B)

This is a 500 mile trip, commencing near Pickle Lake and terminating at Attawapiskat on James Bay. It is a long and demanding trip through picturesque and varied scenery, with extensive whitewater. Ground transportation from Toronto to Savant Lake may be by VIA Rail; alternate car transportation is also possible. Return transportation is by Austin Airways from Attawapiskat to Moosonee and by rail to Choc-rane. The trip is suitable for canoeists of intermediate or better ability; one experienced canoeist per canoe is desirable. The cost is estimated at \$500 per person, including \$360 for transportation (includes 50% of a canoe) and \$120 for provisions. All non-personal expenses will be shared equally. All canoes, tents, etc. to be provided by participants. The organizer will co-ordinate supply and demand. Limit 4 canoes ( 8 people) interested individuals should apply.

Book as soon as possible due to limit, late applicants will be considered as alternates. Written enquiries should be addressed to: R.H., 1521 Lorne Park Road, Mississauga, Ont.



August SPANISH OR FRENCH RIVER EXPLORATION

organizer: Claire Brigden 416-481-4042  
Contact before the end of June

The trip will be scheduled for the second or third week in August, the details can be discussed by the participants. It is intended as a one-week excursion with some prejudice toward observing the natural world around us. Suitable for intermediates, limit 3 canoes.

# guidelines for wca trips

1. The Outings Committee shall arrange a schedule of appropriate wilderness trips organized by unpaid volunteers from the membership of the WCA, to be published in the newsletter.
2. All trips must have a minimum impact on the environment. To ensure this, trips organizers will limit:
  - a) the number of canoes (or participants) permitted on the trip,
  - b) the type of equipment and supplies used for camping.
3. Participants must register with the organizer at least two weeks (but not more than four) prior to the trip. This is necessary:
  - a) for participants to get detailed information about meeting places, times, changes of plan etc. (It is suggested that organizers send out written information),
  - b) to avoid having too large a group,
  - c) to screen participants as to skill, if necessary.
4. Food, transportation, canoes, camping equipment, partners, etc. are the responsibility of each participant. (In some cases, however, the organizers may be able to assist in these areas; particularly the pairing of partners.)
5. Participants are responsible for their own safety at all times, and must sign a waiver from. (Organizers should return completed waivers to the Outings Committee to be kept on file.)
6. Organizers reserve the right to:
  - a) exclude participants based on experience level,
  - b) determine paddlers' positions in canoes by experience,
  - c) exclude any canoe deemed "unsafe" for any particular trip.
7. In the event of any dumping or other potentially dangerous situation occurring on a trip, the organizer and participants involved will fill out a Mishap Report to be sent to the Outings Committee, immediately after the trip.
8. Lone paddlers and / or Kayaks are permitted on trips at the discretion of the organizer.
9. Non-members are permitted to participate in only two trips.
10. Organizers should write a brief description of the trip (or arrange to have this done) and send it to the newsletter editor as soon as possible after the trip.

# trip ratings

In order to avoid confusion over the level of difficulty of WCA canoe trips each newsletter description will state the level of experience required. The following international river rating system, advocated by the Canadian White Water Affiliation, should serve as a guide.

CLASS	DESCRIPTION	MINIMUM EXPERIENCE REQUIRED
	<u>Very Easy</u> : moving water with no rapids, some small riffles, and wide passages.	Beginner (with some instruction)
I	<u>Easy</u> : some small rapids with small waves and few obstacles. Correct courses easy to recognize. River speed is less than hard backpaddling speed.	Novice (beginner with some practice)
II	<u>Medium</u> : frequent but unobstructed rapids. Passages easy to recognize. River speed occasionally exceeds hard backpaddling speed.	Intermediate
III	<u>Difficult</u> : numerous rapids, large waves, and many obstacles requiring precise maneuvering. Courses not easy to recognize. Current speed usually less than forward paddling speed. General limit for open canoes.	Advanced
IV	<u>Very Difficult</u> : long rapids with irregular waves, boulders directly in current, strong eddies and cross-currents. Scouting and fast precise maneuvering is mandatory. Courses difficult to recognize. Current speed often exceeds fast forward paddling speed.	Expert
V-VI	<u>Exceedingly Difficult</u> : very strong current, extreme turbulence, big drops, steep gradients, many obstacles. <u>Limit of navigability</u> :	Team of Experts in covered canoe)

NOTE: This rating system is flexible, and just a rough guide. It is not based exclusively on the above descriptions. Factors such as remoteness, water temperature, river width, etc. can make a river more or less difficult, and vary the level of skill required. Further, a river may change its rating drastically depending upon the time of year. Finally, a stretch of river may be classed as easy, but may contain rapids of any grade which may influence the overall rating of the trip very little.

Lake trips cannot be so readily rated for difficulty. Generally, lake trips are suitable for beginners; however, strong winds on a large lake can be dangerous for any canoeist, no matter what his experience.

THE RATING OF TRIPS IS THE DECISION OF THE ORGANIZER.

# canoe safety rules

(These rules are to be applied at the discretion of the trip organizers.)

- 1.) Paddlers will not be allowed on any trip without:
  - i) a flotation jacket that can be worn while paddling,
  - ii) a "safe" canoe (minimum length 15 ft for 2 paddlers),
  - iii) lining ropes (at least 25 ft) on bow and stern.
- 2.) Paddlers should always bring:
  - i) spare clothing, well waterproofed,
  - ii) extra food,
  - iii) matches in waterproof container.
- 3.) The signals used on WCA river trips should be known ahead of time.
- 4.) On rivers, canoes should maintain a definite order. Each boat is responsible for the one behind, giving signals after finishing any rapid, and positioning itself below the rapid ready to assist in case of trouble. Always keep the canoe behind in sight.
- 5.) Canoes should keep well spaced in rapids. Do not enter a rapid until the preceding canoe has successfully completed its run and signalled.
- 6.) The organizers' decisions on all trips are final.

## SIGNALS



difficult - use own judgment



danger - do not run



all clear - with caution

# products and services

## For Sale:

Two brand new, never used U VIC Thermofloat Mustang Floaters, size medium. Ideal for spring paddling. Regular price \$165 each - will sell pair for \$95 each. Phone Bob Almack (416) 751-8351 (wk.) or 481-3778 (evenings).

## Bluewater Canoes:

Lightweight Kevlar-S-glass, fibreglass, and nylon canoes made with vinylester and epoxy resins. Blue-water spraycovers made from coated, waterproof nylon to fit any canoe. Also, this year we will be manufacturing, under licence, a few of Eugene Jensen's designs. Long distance canoeists will be particularly interested in the extremely sleek 18'6" Whitewater II model. For further information contact Rockwood Outfitters, 45 Speedvale Ave. E., Guelph, Ont., N1H 1J2. Phone (519) 824-1415.

## Camera Bags:

Waterproof rubber bags for cameras, etc. Stronger than plastic. Has sling straps. Call John Cross (416-487-0678), 29 Crestview Rd., Toronto, M5H 1H5

## Scott Canoes:

Complete line of Canadian-made fibreglass and Kevlar canoes is available at special discount prices to WCA members. For information contact David Pelly at 416-749-2176 during business hours.

## Expedition:

David Pelly's new book Expedition, recounting both Captain George Back's explorations of Canada's Barrens in 1834 and David's own retracing of this route in 1977, can be ordered directly from the publisher. Send \$19.95 plus \$1.55 for mailing to: Betelgeuse Books, P.O. Box 1334, Station B, Weston, Ontario, M9L 2W9. (If you use this order form, the WCA will receive a commission on each sale.)

Please send \_\_\_ copies of Expedition to:

Name: \_\_\_\_\_

Address \_\_\_\_\_

## Discounts on Camping Supplies:

WCA members who present a membership card will receive ten percent discounts on many non-sale items at:

Margesson's, 17 Adelaide St. E., Toronto.  
Don Bell Sports, 164 Front St., Trenton.  
A.B.C. Sports, 552 Yonge St., Toronto.  
Rockwood Outfitters, 45 Speedvale Ave. E., Guelph.

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

## Canoe For Sale:

Sixteen foot Old Town ABS river canoe. Almost new condition. Price \$590 or offer. John Sprague, 166 Maple St., Guelph, N1G 2G7. Phone (519) 824-8329.

## Coleman Craft Canoes:

Coleman Craft Canoes, of hand-layed-up fibreglass, are available in 12'8", 14'8", and 16' L.O.A., with either a lake keel or shallow keel for river use. Custom made and sold only at our shop. Maximum production is limited to 100 per year. Please phone if you are interested in viewing films of our canoes and discussing their features. Bill Coleman: (519) 623-1804/1894. Shop located at 333 Dundas St. (Hwy. 8), Cambridge (Galt), Ontario.

## Rockwood Outfitters Spring Sale:

April 17, 9:00 a.m. to 5:00 p.m. We will be holding a sale of some new and used canoes, seconds, Mustang lifejackets, paddles, etc. 45 Speedvale Ave. E., Guelph, Ont. (519) 824-1415.

## Headwaters

Our rustic base camp on Anamanipissing Lake near Temagami is open for general guests in the spring and fall (24th of May weekend to July 1 and Labour Day to Thanksgiving). An ideal location to spend a few quiet days with friends or family, paddling, hiking, sketching, taking pictures, reading and enjoying the natural environment.

For rates and details contact: Carin or Hugh Stewart, Headwaters, Box 288W, Temagami, Ontario, P0H 2H0, (705) 569-3522.

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