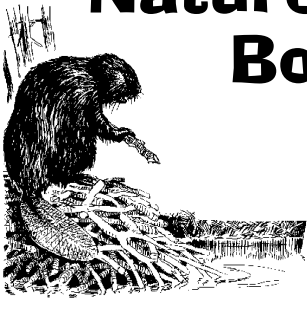


Tips For Fishing By Canoe

&

Canoe Country Nature Guide Book



NORTHERN TIER HIGH ADVENTURE
BOY SCOUTS OF AMERICA
BOX 509, ELY, MINNESOTA 55731

Tips on Fishing By Canoe & Canoe Country Nature Book

Northern Tier covers some of the finest canoe camping country in Minnesota, Ontario and Manitoba. The fishing portion of this booklet is designed to show some of the angling methods which have been most effective in these areas.

Some of the most spectacular gamefishing in North America is available in the waters covered by Northern Tier. The principle species are walleye, bass, northern pike and lake trout. There are also panfish - yellow perch, sunfish and rock bass - and in the Bissett area are an abundance of large channel catfish.

The nature portion of this book is dedicated to all the Scouts who have travelled these trails before and blazed the way for those of us who travel now...and for those yet to come.

Written and illustrated by Bob Cary, with the help and cooperation of the staff of the Northern Tier National High Adventure Program, Ely, Minnesota.

AUTHOR/ILLUSTRATOR - BOB CARY
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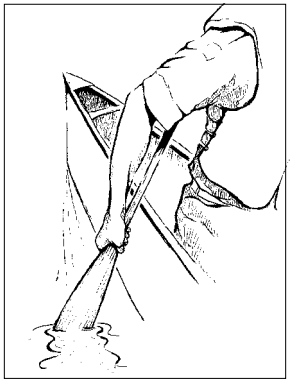
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Printed by the Ely Echo, Ely, Minnesota.



Methods of Fishing by Canoe

Canoe fishing is considerably different from fishing by motorboat. Canoes allow anglers more mobility and the opportunity to get into more remote, seldom-fished waters. However canoes are more confining and care must be taken to remain centered on the seats whether casting, fighting a fish or landing a fish.



The stern paddler must essentially act as the "guide," maintaining control of the craft. Because wind is a factor in controlling a canoe, the stern paddler executes by back-paddling or "sculling." This is performed by gripping the paddle near the blade and "locking" the shaft against the body, behind the elbow. This allows the stern paddler to control the craft and at the same time frees one hand for handling his fishing rod.

Veteran canoe anglers carry 50 feet of nylon line which can be lashed to a rock for an anchor. The canoe can be positioned off the edge of a weed bed, sunken bar or rockpile, the anchor dropped freeing both anglers to do some serious fishing, unaffected by the wind. Since Northern Tier operates in rocky country, there is never any shortage of "anchors."

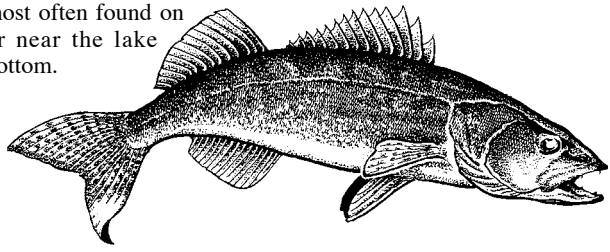
Smart anglers use mainly single-hook lures. Lead-headed jigs can be bolstered with plastic "twister" bodies providing a variety of colors. Also, single spinners can be added as further attractors.

Single hook lures are the safest to use when casting or landing a fish and will take all of the gamefish in the Northern Tier area. Also, a lot of them can be carried in a pouch or plastic bag, eliminating the need for a big tackle box.



WALLEYES

These are the premier fish of the north country. In addition to providing some excellent sport, they are superb eating, particularly the smaller ones, from a pound to two pounds. Walleyes are most often found on or near the lake bottom.



Single hook jig lures, essentially a hook with a lead weight for a head, are excellent for walleyes. The addition of a plastic grub or "twister" tail adds effectiveness. So does a strip of pork rind and pieces of fish meat. In warm weather and in more heavily-fished areas, a jig tipped with a leech or half of a nightcrawler can be very effective. Leeches may be kept alive on a canoe trip by changing the water several times each day. Nightcrawlers can be kept in styrofoam boxes filled with worm bedding or Sphagnum moss. Live bait must be kept in the shade or it will die.

Walleyes can also be taken on minnow-imitation lures cast or trolled back of the canoe. If cast, it is sometimes advisable to add a sinker, perhaps 18 inches above the lure. Minnow-imitations are usually equipped with two or more triple gang hooks. These can be a hazard and care must be taken when casting or landing a flopping fish to keep the hooks away from fingers, legs and clothing.

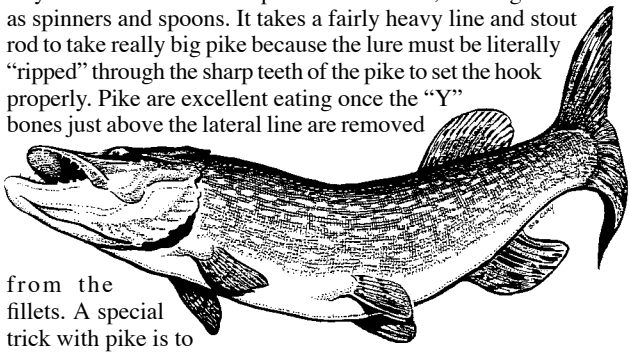
Choice walleye spots are the edges of rock piles, ledges and reefs, the outside edge of weed beds called the "weed line" or "breakline" and on long, sloping sand or gravel bars. Where streams come into lakes, walleyes are usually found in the currents and in the eddies alongside the depth currents.



NORTHERN PIKE

Northern pike are numerous and a very active fish species.

Normally, they hang out in fairly shallow water, around weed beds, rocky reefs and currents where streams enter lakes. They will strike almost any type of lure from fast-retrieved surface baits to spoons, spinners and jigs. In areas where northern pike are numerous it pays to fish with a wire leader. Probably the easiest way to make contact with pike is with metal, flashing lures such as spinners and spoons. It takes a fairly heavy line and stout rod to take really big pike because the lure must be literally "ripped" through the sharp teeth of the pike to set the hook properly. Pike are excellent eating once the "Y" bones just above the lateral line are removed from the fillets. A special trick with pike is to cut up the fillets into inch-square pieces and dip them for about three minutes in rapidly boiling salt water. Taken out of the water and allowed to drain and cool, they make excellent appetizers or even main dishes. They are white and rubbery, and are dubbed "poor man's lobster." Dipped in melted margarine, they are a wilderness treat.



Best pike are in the 4-6 pound size. Smaller pikes are hard to fillet and larger pike not nearly as good to eat.

Really big pike should not be brought into the canoe. Instead, paddle to a sloping ledge or gravel beach and slide the fish up on the shore where the hook can be removed. It is imperative to carry long-nosed pliers when pike fishing to remove the hook without getting a hand too near the big teeth.

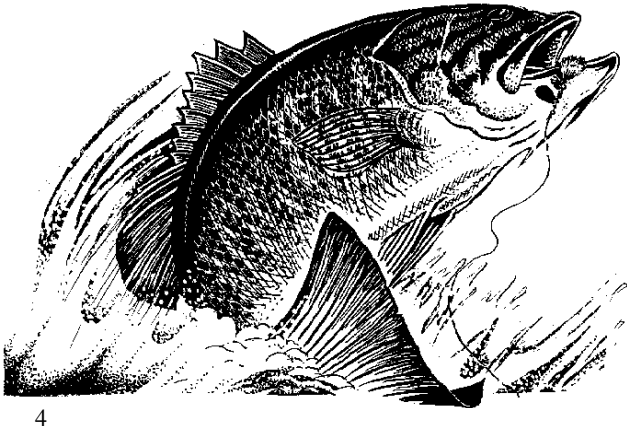


BASS

The acrobats of the northland, bass are spectacular leapers. In the spring and early summer, they will strike readily on the surface. Any type of floating lure which can be twitched, gurgled or popped on the surface will work. Bass also strike readily on jigs-and-grub combinations and minnow-like crank baits. In late summer and fall a jig with a leech or piece of night crawler can be deadly. Bass can be found in spring and summer in weedy shallows, on gravel bars and in rocky currents, rock reefs and boulder "gardens" where they seek their favorite food: crawfish. Another good trick, when fishing is slow, is to stalk through reeds and shoreline grass to capture frogs. Used on a plain jig hook, they are nearly irresistible to bass.

Bass may be landed by shoving a thumb in their mouth and lifting them from the water with a forefinger under the jaw. Bass teeth are like sandpaper and do not cut. Small bass, in the one-pound to three-pound class make excellent eating filleted and fried or baked over the coals. Large bass are female breeders and should be released unharmed.

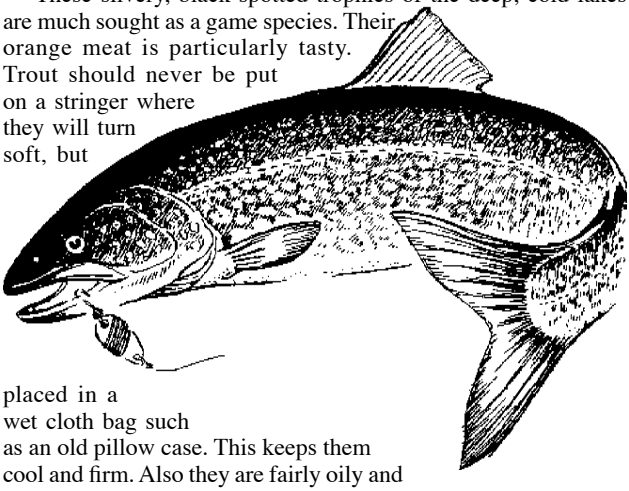
Smallmouth bass are numerous in the Boundary Waters and Quetico Park. Many of the waters around Atikokan are filled with bass. There are few bass around Bissett.





LAKE TROUT

These silvery, black-spotted trophies of the deep, cold lakes are much sought as a game species. Their orange meat is particularly tasty. Trout should never be put on a stringer where they will turn soft, but placed in a wet cloth bag such as an old pillow case. This keeps them cool and firm. Also they are fairly oily and do not fry up well. Instead, broil them over the coals by splitting them down the back and laying them skin side down. They can be baked in foil pouches with a slice of onion and strip of bacon on each one. Taste can be added by seasoning the inside body cavity. Trout are simply gutted, the head cut off and the body cooked whole.

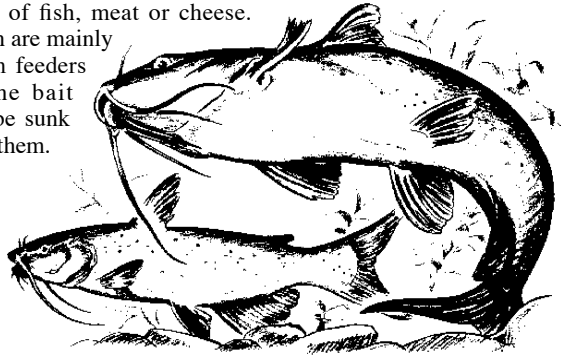


Easiest way to catch trout is by trolling a nickel spoon in the springtime on a long line behind the canoe. Troll at a fairly steady pace. In warm weather, trout can be taken on white jigs or heavy metal spoons sunk 50 feet or more, jigged upward sharply and allowed to flutter down. Trout prefer cold water and tend to stay deep all summer. They do not tolerate warm water and when caught must be eaten because they will die if brought up to the surface in the summer.

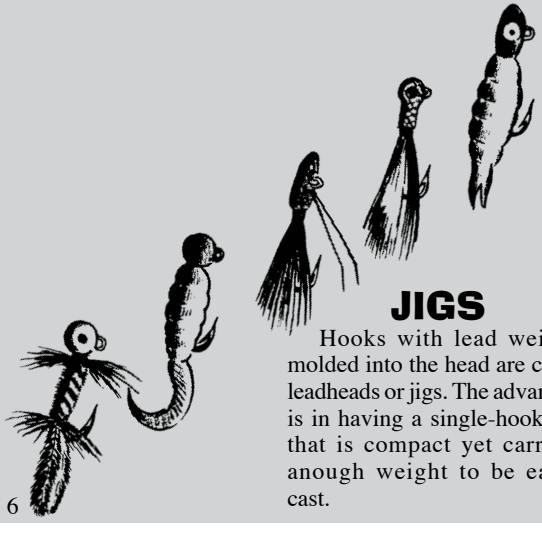


CATFISH

Rivers in the Bissett area, such as the Bloodvein, are loaded with channel catfish. These can be taken on lures fished slowly or on plain hooks baited with pieces of fish, meat or cheese. Catfish are mainly bottom feeders and the bait must be sunk to get them.



Catfish are excellent to eat. Simply skin them with pliers and either fillet them or cut them into chunks and fry them.



JIGS

Hooks with lead weights molded into the head are called leadheads or jigs. The advantage is in having a single-hook lure that is compact yet carrying anough weight to be easily cast.



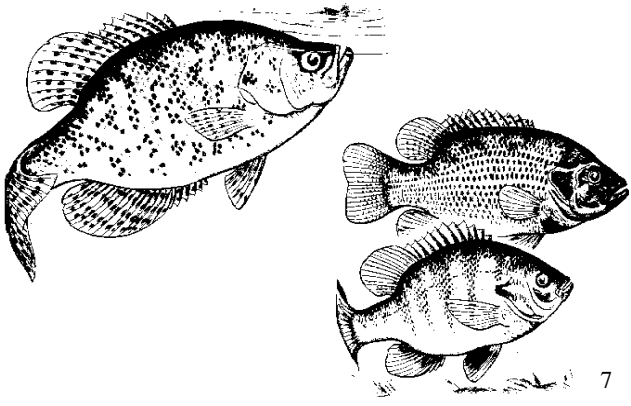
PANFISH

Panfish - yellow perch, sunfish and rockbass - are found in all lakes in the Northern Tier areas. These can be caught on tiny jigs or on plain hooks baited with worms or pieces of meat. A simple way to catch them is to fish around fallen trees or weedbeds with a small bobber to keep the bait off the bottom.

Panfish can be scaled, gutted, and fried whole after rolling them in flour and corn meal.

MANITOBA REQUIRES BARBLESS HOOKS

Manitoba fishing regulations require all fishing lures/hooks be barbless. You can make your lures/hooks barbless by flattening the barb against the shaft of the hook with a pair of pliers. Barbless hooks make for easy release of fish and minimize injury to fish that are caught and released.

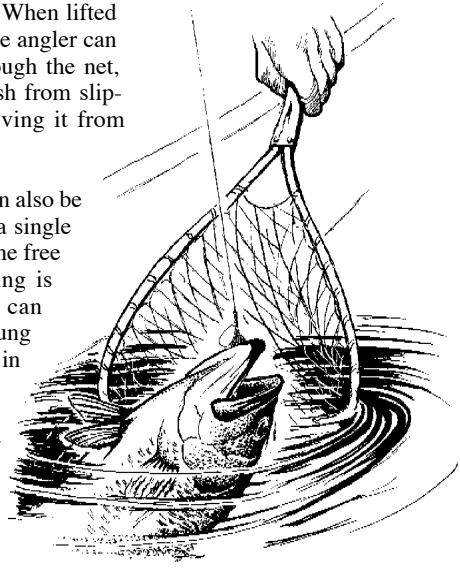




LANDING FISH FROM A CANOE

It is one thing to get a fish on the hook, another to get it in the canoe. Probably the handiest item is a small landing net, a short-handled net which can be stowed inside a packsack when not in use. Fish can be landed by grabbing them, but a net prevents getting fingers stuck on sharp fins, teeth or (in case of walleyes) the sharp gill covers. Also, when in a net, fish cannot thrash around inside the canoe and possibly sink a hook into pants, legs or socks.

Fish should be led toward the net and netted head first. When lifted into the canoe, the angler can grip the fish through the net, preventing the fish from slipping while removing it from the hook.



Fish can also be landed by using a single cotton glove on the free hand. After fishing is done, the glove can be rinsed and wrung out, dried and put in the pack.

Extra-large fish, such as big pike, may be beached instead of bringing them into the canoe. When the fish is obviously tired, simply paddle to shore, ease the fish into the shallows and release it by reaching down with pliers and removing the hook. If a photo is wished, lift the fish up by gripping it behind the gills, take the photo quickly and put the fish back in the lake.



SPECIAL EQUIPMENT

Fillet Knife

A good, sharp knife with a long, thin, flexible blade is essential for cleaning fish. It should be kept secure in a sheath when not being used.

Sharpener

A good sharpening system should be available at home where a razor edge can be honed. For fishing trips, a small steel or diamond-edged sharpener will touch up the blade when work needs to be done. Such a sharpener also can be used to touch up hook points that get dull.

Line Clipper

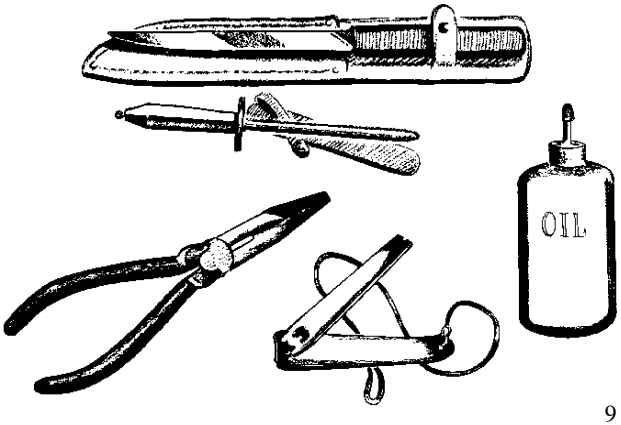
Fisherman should always use some type of cutter or knife to cut monofilament line, never the teeth. A fingernail clipper on an elastic cord is a handy item.

Long-nosed Pliers

These are used for taking hooks out of fish and for straightening bent hooks. They should be equipped with side edges for cutting hooks.

Reel Oil

A can of oil and a small tube of gear grease will keep reels running smoothly and make them last years longer.

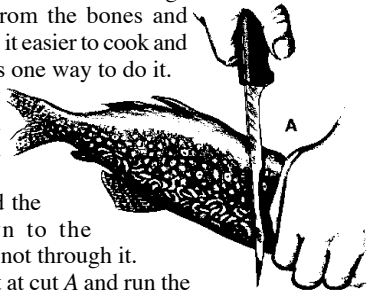




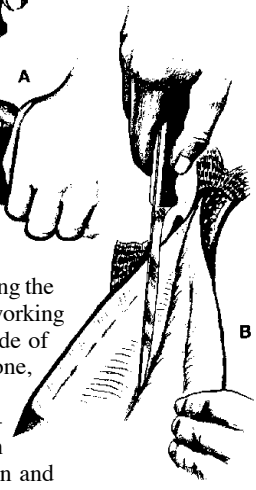
FILLETING FISH

Removing the meat of a fish from the bones and skin makes it easier to cook and eat. Here is one way to do it.

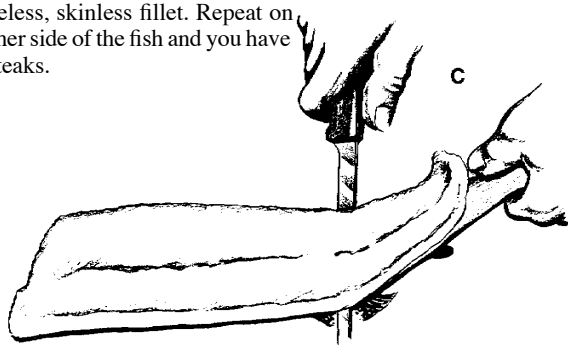
A. Lay the fish on its side and make a cut just behind the gills down to the backbone, not through it.



B. Start at cut *A* and run the point of the knife alongside the backbone down to where it starts to click along the tops of the ribs. Cut alongside the ribs, working back toward the tail until the entire side of the fish is free from the ribs and backbone, but leave it attached to the tail.

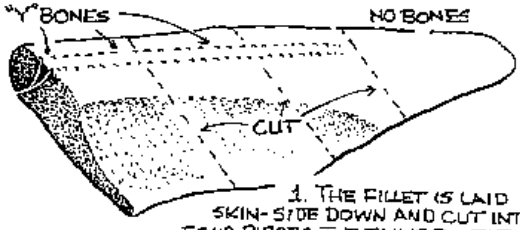


C. Lay the side flat and hook a forefinger under the skin near the tail. Run the knife into the meat next to the skin and hold the blade against the inside of the skin at an angle of about 45 degrees. Holding the blade steady, gently lift the forefinger holding the skin and pull. The skin will slide out leaving a boneless, skinless fillet. Repeat on the other side of the fish and you have two steaks.

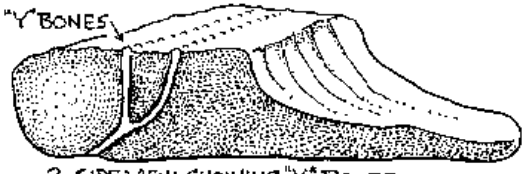




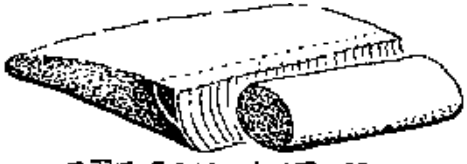
BONING FISH



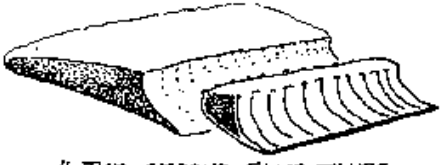
1. THE FILLET IS LAID SKIN-SIDE DOWN AND CUT INTO FOUR PIECES. THE TAIL IS BONELESS.



2. SIDE VIEW SHOWING "Y" BONES



3. THE FIRST SLICE TAKES OUT THE PIECE OF MEAT ON THE OUTSIDE OF THE "Y" BONES. SAVE THIS. IT IS BONELESS.



4. THE SECOND SLICE TAKES OUT THE WEDGE OF MEAT THAT CONTAINS THE "Y" BONES. THROW IT AWAY. THE REST IS BONELESS.

KNOTS FOR FISHING



Contrary to the thinking of many novice fishermen, a simple overhand knot will not do in most fishing situations. Although a knot may seem insignificant, it can be and quite often is the crucial factor between success and failure.

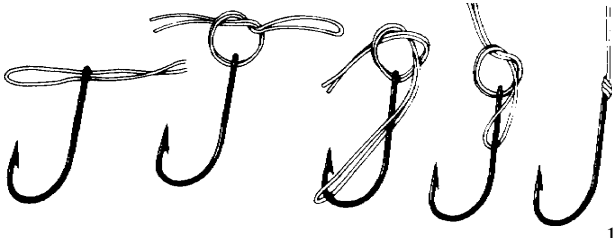
Improved Cinch Knot

This is the universal knot for tying monofilament to a hook or for tying hooks and swivels - any object having an eye - to a line. Run the end of the line through the eye, double the line back, and make five twists around the line, leaving a loop. Run the end of the line through the loop where the line joins the eye and then pass the line through the large loop. Partially close the knot and moisten it a little (not with saliva) before securing it against the eye. Because monofilament is slippery, it takes a knot that will jam against itself and hold tight, yet not cut itself.



Palomar Knot

This is another basic knot. Double the line to make a 3- to 4-inch loop, then pass the end of the loop through the eye. Hold the standing part between thumb and forefinger and tie a loose overhhand knot in the double line with the other hand. Then pass the hook through the loop and pull on the doubled line to tighten the knot, guiding the loop over the top of the eyelet. Clip the tag end.





CATCH & RELEASE

It is an idea whose time has come and thousands of sport fishermen now practice catching and releasing the fish unharmed. There has always been a lot of Catch & Release in the Boundary Waters because there is really no way to haul a lot of fish out without having them spoil.

The rule is: catch what you want for a single meal, clean them, cook them and eat them, but don't keep any more fish than can be eaten at a sitting. Pay particular attention to releasing the larger fish because they are invariably females which are the key to spawning and maintaining bountiful fish stocks in our northern lakes.

The best eating fish are the smaller ones, from one to two pounds. A good rule of the thumb is to keep only one fish for each person in the group...and take extra care in unhooking and releasing the rest.

Catch & Release will insure that the canoe country, from now to eternity, will always have a bountiful fish supply for sport and food.

Larger fish are invariably females which are the key to spawning and maintaining bountiful fish stocks in our northern lakes.





NOTES



Canoe Country Nature

While most of the world thinks in terms of four seasons - spring summer, winter and fall - in the north country, we are concerned mainly with two: open water season and freeze-up. These, as they have for centuries, determine our method of travel...either by canoe or on foot.

First, let us consider the canoe, the finest, lightest displacement hull ever designed by humans. No one has improved on the basic lines developed by the Indian, our only contribution has been better materials to replace the birchbark covering.

As the Indian used his canoe as a vehicle for fishing, hunting and trapping, so we use our canoes today for travel and for nature study. Paddling silently, it is possible for us to approach and observe, even photograph, many of the birds and animals which are found in the wilderness.

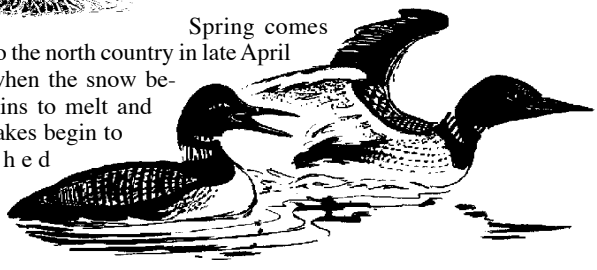
On the following pages are sketches and notes about some of the species you may see along the northern trails. Some are quite common, even friendly visitors to your campsite. Some are night travellers, leaving only their tracks or their cries in the darkness to indicate their presence. Some are quite rare and you may be one of the fortunate few who get to view them in their natural habitat.

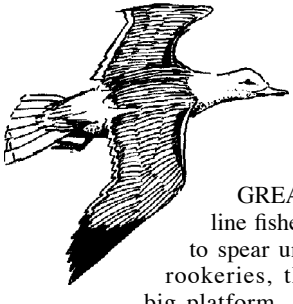
However, no matter how common or how rare, we do not disturb any of the birds or animals unnecessarily, nor do we touch their nests or their dens. In so far as possible, we leave the forest and the waters exactly as we found them. Your canoe is your passport to adventure. Your ability to observe and travel quietly will determine just how much of the wildlife you will see. Travel on...



Birds and Ducks

Spring comes to the north country in late April when the snow begins to melt and lakes begin to shed their ice. Early arrivals are the LOON, dressed in their bright tuxedos and shouting their crazy cries.



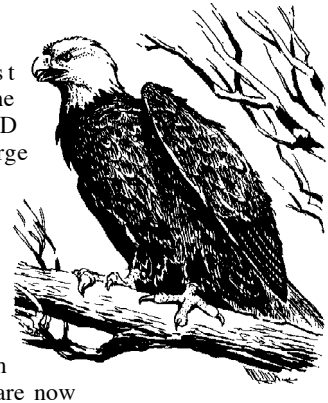


The HERRING GULL is another early arrival, circling the lakes like a gray and white sailplane.

A third early spring arrival is the GREAT BLUE HERON, solitary shoreline fisherman, who stands in the shallows to spear unwary fish. Herons nest in large rookeries, their big platform nests containing one to three squalling, ugly little sharp-billed brats.





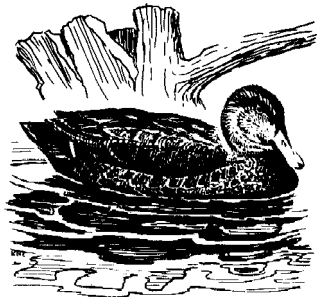


Largest of the airborne hunters of the northern skies is the BALD EAGLE which nests on large platforms of sticks atop tall pine trees. Possessing sharp eyes, the eagle can plummet from great heights to strike his prey...or, perhaps to steal a fresh fish dinner from the less-powerful osprey. Once nearly wiped out by fish tainted with chemical pesticides, eagles are now making a slow comeback in the more remote areas of the wilderness...proud and fearless rulers of the skies.

TURKEY VULTURES are the scavengers of the north, cleaning up the refuse of the forests and lakes. Travelling in squadrons, they soar above the treetops seeking out dead fish or animals upon which they seem to dine with great relish.

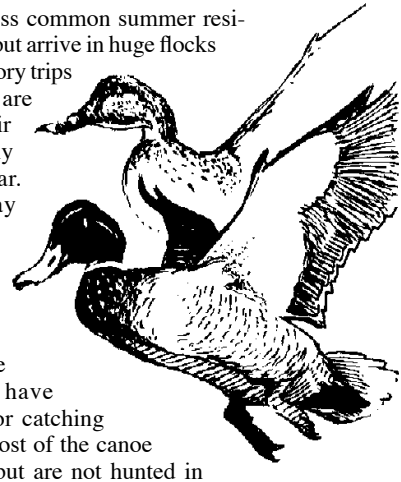




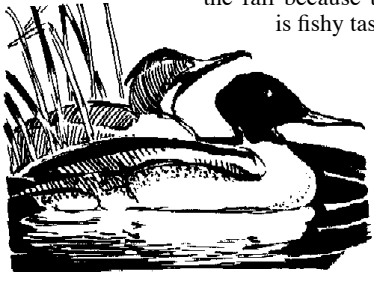


BLACKDUCKS nest on the marshes over much of the canoe country and are a common sight in the summer with their broods of six to twelve young. They feed extensively on wild rice and are a very highly-prized game bird.

MALLARDS are less common summer residents than blackducks, but arrive in huge flocks each fall on their migratory trips to the south. Drakes are easily identified by their green heads, mahogany chests and white collar. Hens are mottled gray and brown. Mallards are one of the tastiest of waterfowl.



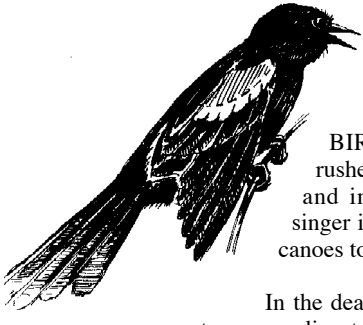
MERGANSERS are brightly colored and have long, thin bills used for catching fish. They nest over most of the canoe country but are not hunted in the fall because their flesh is fishy tasting.





Song birds of the canoe country include that crazy, chattering high diver the KINGFISHER. From his perch over the water, this sharp-billed fisherman dives head-first into the lake to spear his lunch with a long, powerful bill. His large, crested head and blue-and-white color make him easy to spot.

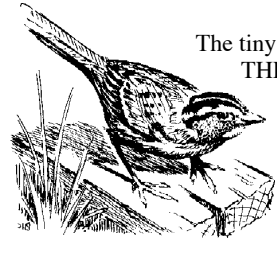




REDWING BLACKBIRDS are found among the rushes and cattails along streams and in marshes. This colorful singer is quite tame and will allow canoes to come very close.

In the dead of winter, when the temperature may dive to 50 below zero, there are some very hardy, year-around residents of the north that live quite well in their down parkas. The tiny CHICKADEE is one of the toughest, flitting from cover to cover in search of seeds. With his grayish wings, black throat and crest, and white cheeks, the chickadee has a coat to match his cheery chirping sound from which he was named. Quite tame, he will readily feed from hand.





The tiny WHITE-THROATED SPARROW is often heard but seldom seen. It frequents the high tree tops and calls out to all the word, “Let us sing about it.”



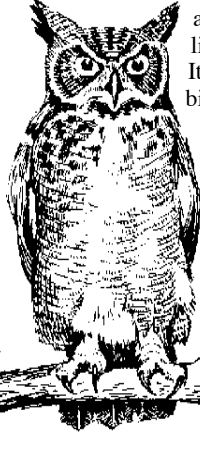


The big, grayish CANADA JAY is also very tame, but visits mainly to see what he can steal...which is why he is often given the name of "camp robber."

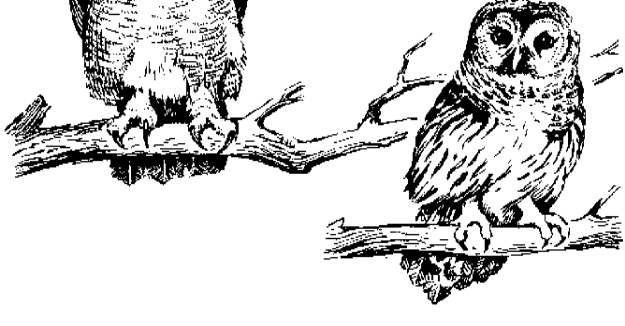


The BLUE JAY, a handsome dude in his blue, white and black attire, hoarsely cries "Thief! Thief!" at all of the other creatures in the woods, while he himself is the biggest thief of all.

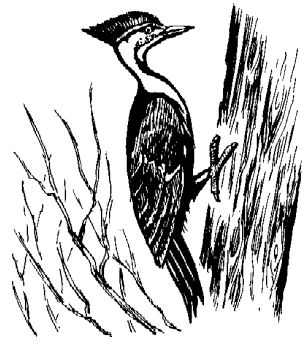
Night hunter of the woods, the GREAT HORNED OWL is a year-around resident, living on birds and rodents. It is very large with a five-foot wingspan, big sharp talons and prominent ear tufts.



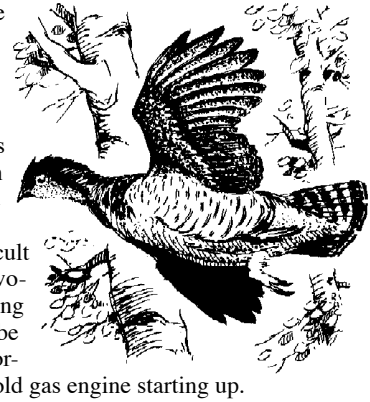
The BARRED OWL is a year-round resident best known for his eerie "Who, Who, Who-Who Aw."







Rare over the rest of the U.S., the PILEATED WOODPECKER is fairly common in the canoe country. A large black and white bird with a bright red topknot, it is easily identified in the woods. It is also unafraid and easy to approach and even photograph.



RUFFED GROUSE are the most colorful game birds of the northern forests with their reddish-brown backs, black shoulder patches, tan underparts and brilliantly barred fan tails. They take flight with a thunder of rocketing wings and make very difficult targets for the hunter, two-legged or wild. When mating in the spring, cocks can be heard "drumming" in the forest, a sound similar to an old gas engine starting up.

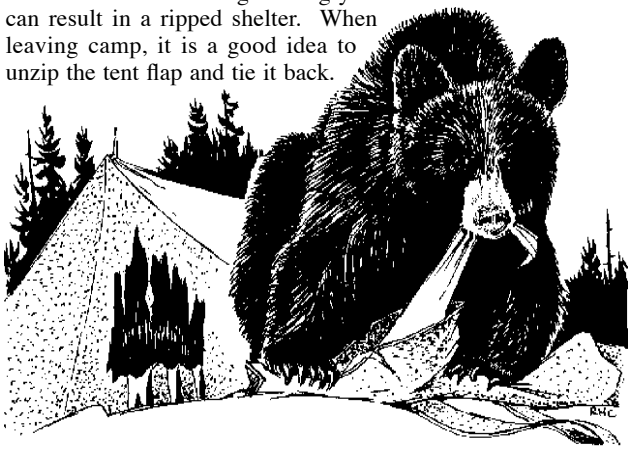


The much darker SPRUCE GOOSE is aptly called "fool hen" by woodsmen because it will allow anybody or anything to come close. Not nearly as tasty as the ruffed variety, it is seldom taken by hunters, but is fair game for furred and feathered predators. The male has a black neck and chest with a red eye patch. Both male and female have dark tails.

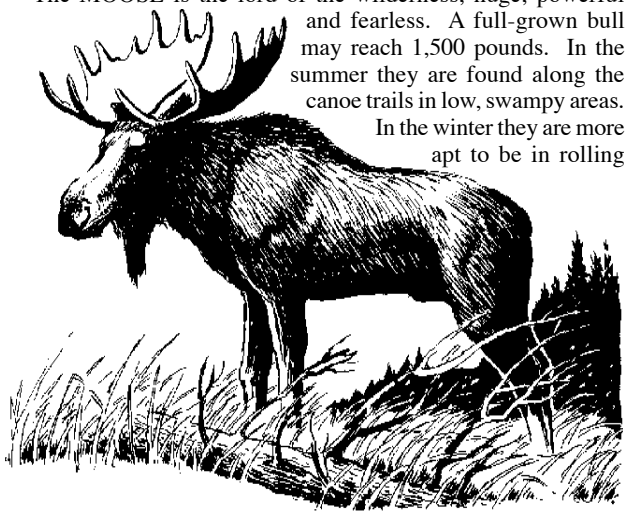
Animals



The BLACK BEAR is not somebody to fool with. While bears do not seek out or provoke a fight, they are powerful and have claws like steel hooks. Food packs not hung up high are inviting to hungry bears and food inside a tent can result in a ripped shelter. When leaving camp, it is a good idea to unzip the tent flap and tie it back.



The MOOSE is the lord of the wilderness, huge, powerful and fearless. A full-grown bull may reach 1,500 pounds. In the summer they are found along the canoe trails in low, swampy areas. In the winter they are more apt to be in rolling



country feeding on maple, cedar and aspen.



The WHITETAIL DEER is the most common big game animal in the north country. Reddish in the summer, it turns gray in the fall. Bucks shed antlers in January and grow new ones each summer. Deer thrive on new sprouts in cut-over or burnt-over land.



The TIMBERWOLF looks like huge, grey shepherds do, but has a full, bushy tail.

Timberwolves can often be heard running deer at night, their howls a trademark.

In the winter, the tracks of this mighty hunter are often seen. The print is the size of a mitten.



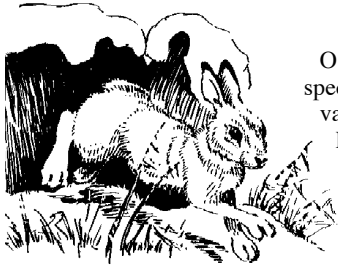




The cats of the north are careful, quiet hunters. The BOBCAT, yellowish-orange and spotted, is the most common, his tracks being seen in the swamps and thickets where he is hunting for his favorite fare, the snowshoe rabbit.

Much larger than the bobcat, grayish in color without spots and with longer ear tufts, is the CANADA LYNX, also a rabbit hunter, but powerful enough to catch and kill deer fawns. Both the lynx and the bobcat are valuable valuable furbearers and their numbers are preserved by strict trapping laws.

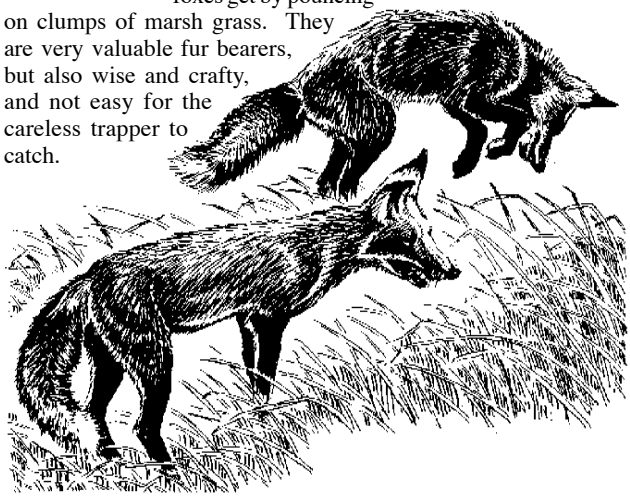




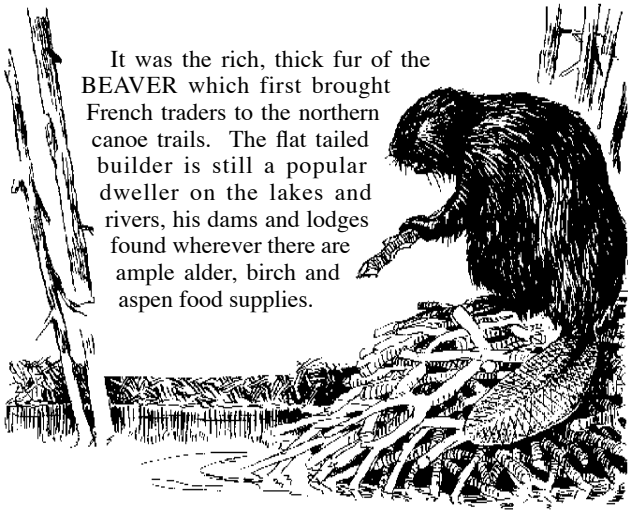
One of the most-hunted prey species of the northwoods is the varying hare, the SNOWSHOE RABBIT, which changes from summer gray to white in the winter. Hunted by foxes, wolves, lynx, owls and hawks, he survives due to a high rate of reproduction.



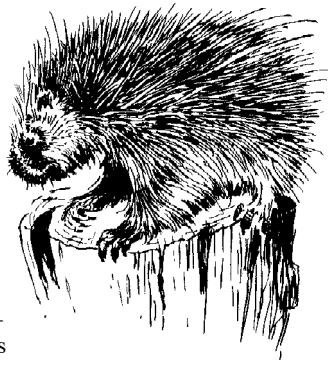
Lucky is the outdoor observer who gets to see a bright orange RED FOX as he hunts his dinner. Mice are important lunch items which foxes get by pouncing on clumps of marsh grass. They are very valuable fur bearers, but also wise and crafty, and not easy for the careless trapper to catch.



It was the rich, thick fur of the BEAVER which first brought French traders to the northern canoe trails. The flat tailed builder is still a popular dweller on the lakes and rivers, his dams and lodges found wherever there are ample alder, birch and aspen food supplies.







PORCUPINES carry an awesome set of barbed spears that disengage on contact and imbed themselves in the attacker. Porkys, however, are slow-moving, peaceful and not a bit troublesome to campers who let them alone.

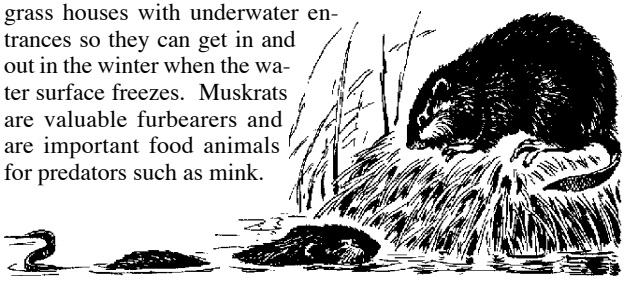


One does not need to see a SKUNK to know it is around...the smell is sharp, distinct, and lingering. Skunks are not troublemakers, however, and will only resort to gas warfare when threatened. Washing in tomato juice or diluted ammonia will usually remove the scent.



MINK have dark brown, glossy coats that make them one of the most valuable furbearers in the north, much prized by trappers.

MUSKRATS inhabit the same type of low country where the moose lives. These aquatic mammals build their low, rounded grass houses with underwater entrances so they can get in and out in the winter when the water surface freezes. Muskrats are valuable furbearers and are important food animals for predators such as mink.





WOODCHUCKS are found in clearings and grassy hillsides. Like other rodents, they are hunted and eaten by larger carnivores such as the timberwolf.



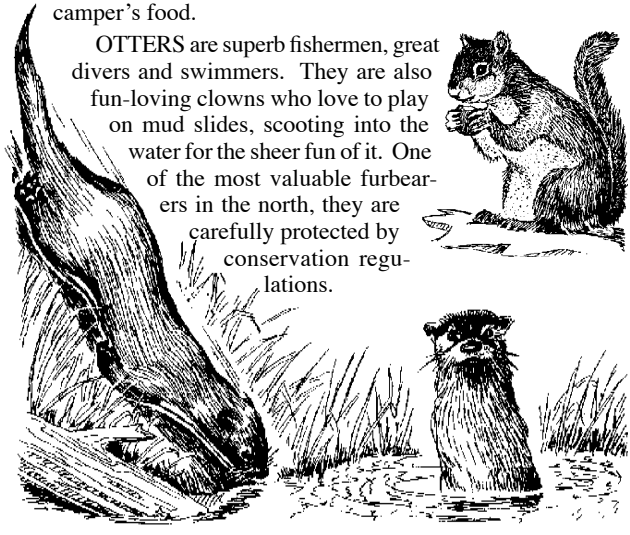
A night visitor is the FLYING SQUIRREL, quite common but seldom seen. They are light gray with white underparts, round of face with big eyes.



Clown of the campsites is the CHIPMUNK, tiny and brightly striped with white and black. Friendly, they will readily climb up on a knee to beg a handout, but they can also cause trouble by eating into food packs.



RED SQUIRRELS are found throughout the forests and are frequent residents on campsites. They are tame and can be induced to eat out of anybody's hand but they will also get into packsacks that aren't lashed tight and eat the camper's food.

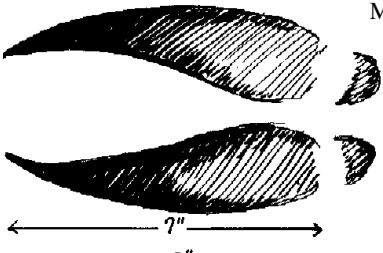


OTTERS are superb fishermen, great divers and swimmers. They are also fun-loving clowns who love to play on mud slides, scooting into the water for the sheer fun of it. One of the most valuable furbearers in the north, they are carefully protected by conservation regulations.



TRACKS AND TRACKING

Every animal has his own distinct print and the nature student who can identify tracks can unravel the life stories the tracks will reveal.

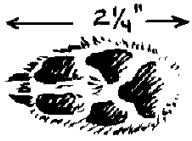


MOOSE have large, split hooves that make a mark like a domestic cow, but sharper and deeper.

DEER hoof prints are split, sharp, with the toe points very prominent, the rest often indistinct.

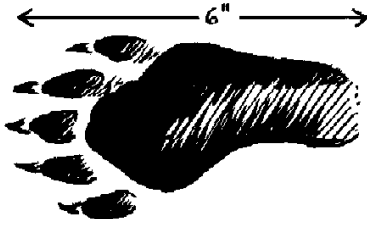
TIMBERWOLF tracks look like a huge dog's. Usually, the two front nails show but the other nails do not appear.



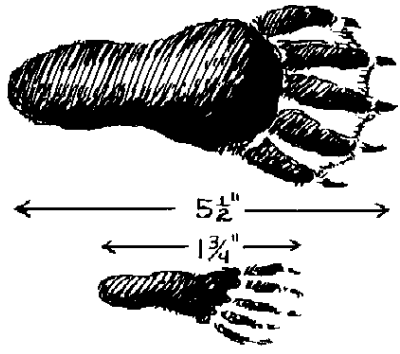


FOX prints are small and delicate, like a very small, narrow-footed dog.

BEAR tracks look much like a human foot, but with sharp nail marks. Front feet do not show the long heel.

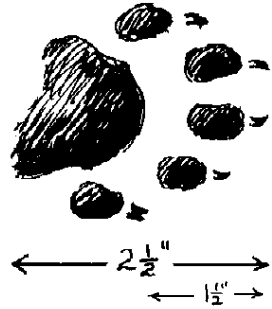






BEAVER have webbed feet that show the web marks in the mud. The hind foot is much longer than the front. Nails show on both.

MUSKRATS have webbed feet but usually only the toes, not the webs show in the tracks.

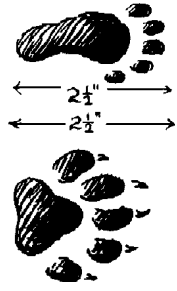


OTTER tracks are rounded with toes and nails prominent. Awkward on land, otter are always found near waterways.

MINK have small, rounded paws with prominent nail marks although the nails may be indistinct in the snow.



SKUNKS have a print something like a miniature bear. The nails usually do not show on the back foot, but may on the front.



FISHER are not common, but are found in the northland in fair numbers. They travel the forests, unlike water-oriented mink and otter.



Fish and Amphibians

There are, living beneath the hulls of our canoes, thousands of fish, most of which can furnish us with excellent meals. While at times it may appear to the unlucky angler that there are indeed no fish at all in the water, it may be our methods or the weather, or a combination of both, which keeps our hooks bare.

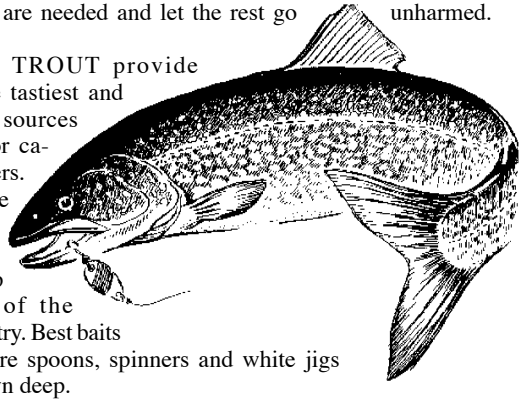
The persistent fisherman will usually have no trouble getting enough for himself and his companions, however. Quite often it is just a simple matter of trolling a spoon or lure 20 to 40 feet behind the canoe while travelling the last mile or so to camp.

During hot weather, when fish may become more selective, it may be worthwhile to capture a half dozen frogs or perhaps some small crawfish for bait.

Some of the best spots to find fish congregated are where rivers empty into lakes, below rapids and waterfalls in the rivers, and around the branches where trees have fallen into the lakes. Care must be taken when fishing to keep hooks from getting stuck in the fishermen. It is a tedious chore getting a wilderness angler to a doctor...and a painful one.

Some fish, such as the northern pike and walleye, have sharp teeth and can cause severe lacerations on fingers. A pair of pliers are indispensable in removing hooks from these toothy critters.

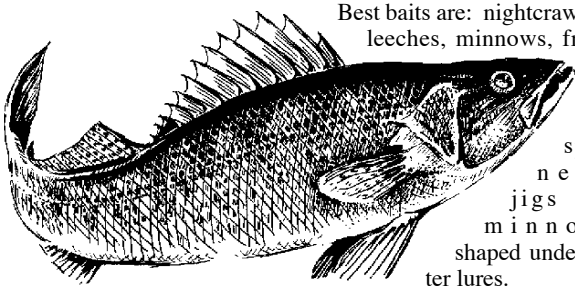
While fish abound in the waters of the wilderness and are fine additions to the trail menu, care should be exercised not to take more than can be eaten at one time. One ordinary walleye or bass will feed two persons. One large pike will feed four to six. Keep only what are needed and let the rest go unharmed.



LAKE TROUT provide one of the tastiest and nutritious sources of food for canoe campers. Trout are found in the clear, cold, deep lakes of of the north country. Best baits for trout are spoons, spinners and white jigs fished down deep.

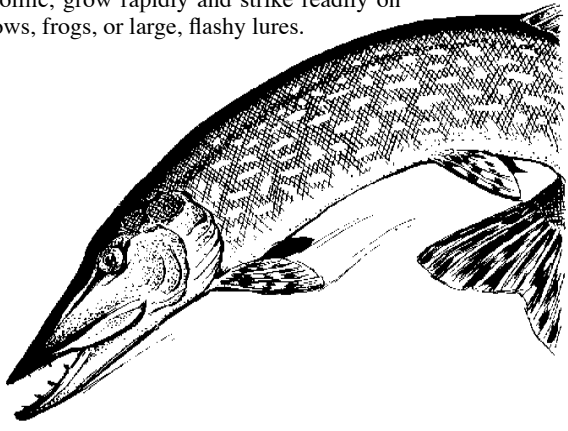


THE WALLEYE is probably the most highly-prized food fish, being abundant, easy to catch and relatively free of small bones. They are found around weed beds, rock piles and where streams enter or leave lakes. Best baits are: nightcrawlers, leeches, minnows, frogs, spinners, jigs and minnow-shaped underwater lures.



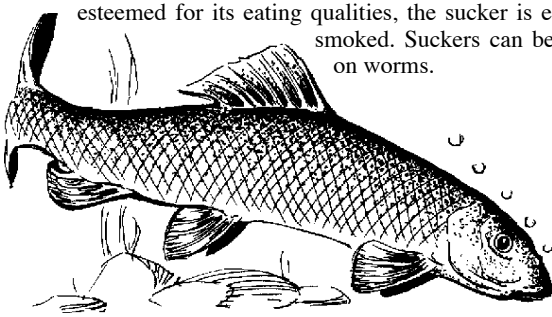
NORTHERN PIKE are the meanest, big-toothed predators of the lakes, slashing and devouring every other fish, including other pike. They grow to 40 pounds in size.

Northern pike are greenish with yellow or white spots. They are prolific, grow rapidly and strike readily on minnows, frogs, or large, flashy lures.

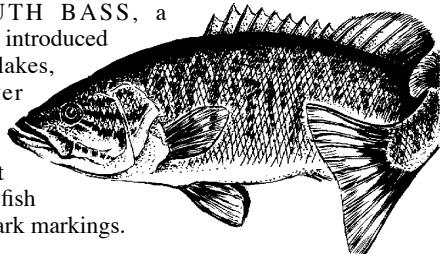


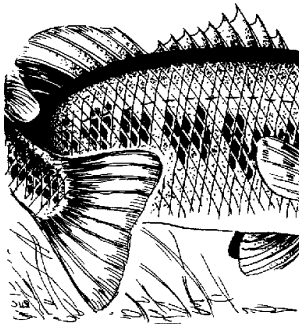


A favorite food of the pike is the native SUCKER, found in almost all of the lakes and rivers in the canoe country. While not usually esteemed for its eating qualities, the sucker is excellent smoked. Suckers can be caught on worms.



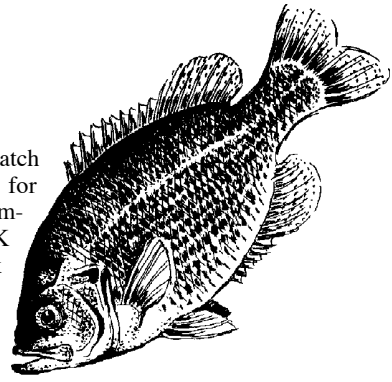
SMALLMOUTH BASS, a species which was introduced into the northern lakes, is now found over most of the area... and furnishes some of the finest angling sport. The fish is brownish with dark markings.



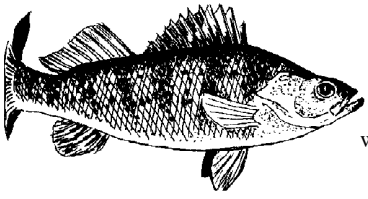


The LARGEMOUTH BASS is a native fish and can be identified by its greenish-silver color with black side markings. The mouth comes well behind the eye, unlike the smallmouth bass, whose mouth comes just to the eye. Both species can be caught on worms, leeches, minnows, crawfish, frogs and artificial lures.

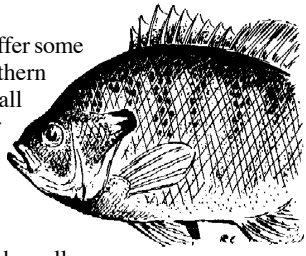




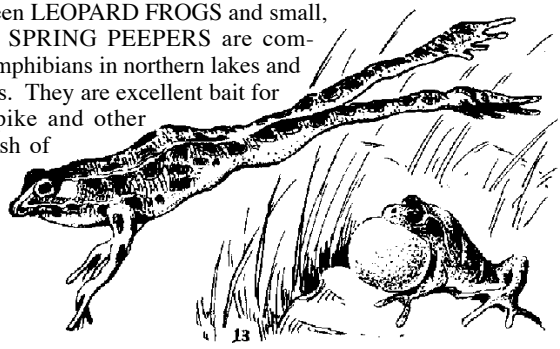
Panfish are easy to catch and make tasty dinners for canoe travellers. One common species is the ROCK BASS, golden with black spots and red eyes. They bite on worms and small lures such as spinners and tiny jigs.



The PERCH is found in large schools around weed beds. It is easily caught on worms or minnows.



BLUEGILLS and SUNFISH offer some of the tastiest eating among northern fish species. They have very small mouths and it takes tiny No. 10 or 12 hooks to get them. They bite good on worms or insects.

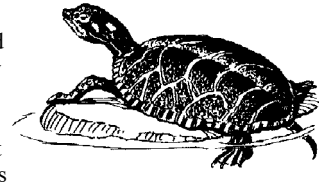


Green LEOPARD FROGS and small, brown SPRING PEEPERS are common amphibians in northern lakes and streams. They are excellent bait for bass, pike and other gamefish of the canoe country.





Among the creatures that live in the water are the armor-plated SNAPPING TURTLES. They are yellowish-brown in color and easily identified by the pointed ridges on the upper shell. Feared by all aquatic life, they will eat anything they can snap on to. Properly cleaned and skinned, they furnish tasty meat, the chief ingredient in that gourmet dish: turtle soup.



PAINTED TURTLES are not edible, but are interesting reptiles often seen loafing on a sunny rock or log.

Trees of Canoe Country

The wildlife community...the animals, birds and fishes...are all involved with the plant life, much the same as man has been from the time of creation. Early dwellers in the forest used a variety of trees and their parts for shelter, transportation, medicine, tools, weapons, containers and heat.

Best known were the canoes made from birchbark, having split cedar frames laced with strands of soaked spruce root and sealed on the seams with pitch from the sap of spruce or fir. Paddles were carved from spruce or ash. Birchbark also provided housing. Two bark layers, insulated with moss, were used in the winter.

Durable baskets were made from willow and from other woods, split into thin slats and woven to shape. Snowshoe frames, made of split spruce, were soaked in hot water, then bent on forms to create the traditional shape on which the rawhide was woven.

Bows, arrows, spears and war clubs were made of straight-grain woods. Spears and arrows were tipped with slivers of flint or sometimes just sharpened and hardened in a fire. Boughs of

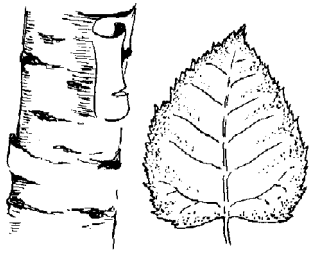


spruce and fir were laid on the floor and covered with rushes to make a dry platform in wet weather. Willows were bent to form frames on which pelts were dried, later to be made into clothing or sleeping robes.

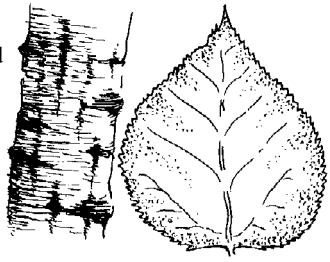
Our main use of the trees in the wilderness today is for firewood, and then only utilizing those trees which have died. All living trees are treated with respect, considering them, as the Indians did, with having a free and living spirit inside them.

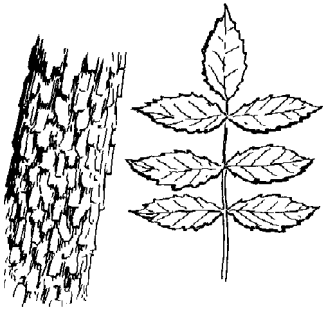
SOME COMMON TREE SPECIES

The CANOE BIRCH is easily identified by its smooth, white bark, the covering used by Indians to make their finely crafted canoes. Bark from dead birch makes a fine tinder to start fires. Peeling a live birch, however, can result in a stiff fine. It is not only against the law, but against good rules of woodsmanship.



ASPEN, which is also called POPPLE in the north, looks something like a birch, but has a silvery or green-gray bark. The buds are an important food source for grouse, and deer feed on the aspen shoots.

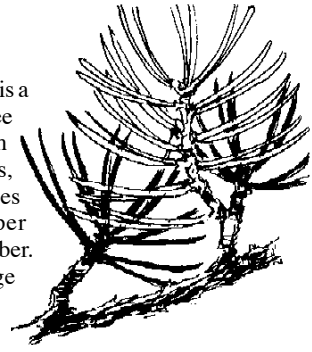


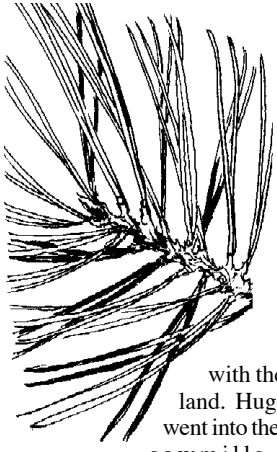


ASH is a tall, straight tree with dark bark. It grows in low, damp areas, usually in groves. Ash is used for paneling and furniture. Dead ash makes one of the best campfire woods that can be found.



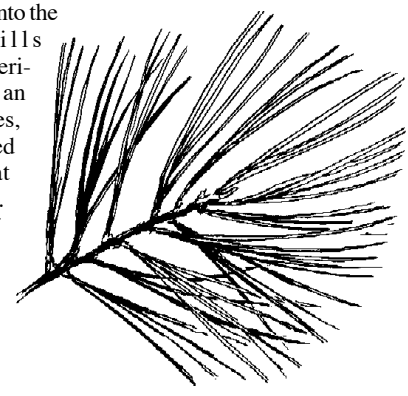
JACKPINE is a tall, straight tree with dark, rough bark. The leaves are in couplets, stiff and dark green. This species is an important source of paper pulp, but is seldom used for lumber. It often grows in solid, even-age stands in areas where fire has swept through.





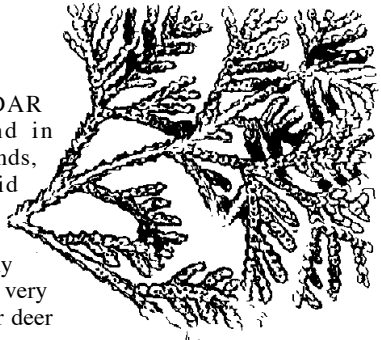
NORWAY or RED PINE has a rough, reddish bark, long leaves that grow in couplets. This stately, majestic species grows to great height and is often used by eagles and ospreys for nesting sites. The Norway is an important lumber tree, used in construction. Tall, isolated pines are not good trees to camp under since lightning tends to strike them.

WHITE PINE is the tree associated with the historic logging drives of the northland. Huge pines, five feet across on the stump, went into the sawmills that were building American cities. While still an important wood species, the tree is now affected with a blister rust that inhibits its growth. Leaves in clusters of five and dark, ridged bark are easy identifying marks.





CEDAR is found in wet lowlands, often growing in solid stands. The leaves are smooth and flattened, the wood straight and easily split. Cedar leaves are a very important winter food for deer and moose.



BALSAM FIR is a common evergreen often grown for Christmas trees. The leaves are short, stiff and somewhat flattened. Old time trappers made beds out of balsam tips, but this is no longer a legal use.



SPRUCE is an important forest tree used for timber and for quality paper. Spruce leaves are short, stiff and bushy. The root, called "watap" by the Indians, was used for lacing canoe frames.



Forest Fire Danger

Too much cannot be written about the danger of forest fires in the north country. Local residents are continually alert but visitors from other areas do not sometimes understand the combination of circumstances which can cause a catastrophe.



First, what often appears to be "dirt," the ground under the trees, is often not the nonburnable mineral soil of areas farther south. The forest floor is mainly composed of leaves, needles, bark and roots, debris deposited year after year. This "duff" is extremely flammable in dry weather and no fires should be built upon it. Furthermore, a fire built on the duff will bore down, often travelling a dozen feet or more along root systems, then popping up to create an open fire long after the campers have left.

Fires must be built either on solid rock or on sand...or what can be identified as sandy, mineral soil. All leaves and duff are scraped away from the fire site to prevent the flames from spreading. Also, fires are never built beneath tree branches which can ignite into a torch, or against a stump which can smolder for days after the fire is presumably out. In windy weather, fires are built on the lee shore or lee side of an island. When this is not possible, a windbreak can be slung with tarp or poncho.

It is not enough to make sure your fire is soaked thoroughly and out. You should also be on the alert to spot a wisp of smoke from someone else's abandoned campfire. Forest fires do not simply burn leaves and branches. In the north, they often burn everything right to the rock and it takes a century or more to restore the plant cover.

The air becomes crisper

In late summer, edging into fall, the leaves are maturing and starting to turn color. Birch and aspen will change from green to bright yellow and gold. Maples will become scarlet, purple or orange. Rice begins to ripen in the bays and streams. It is the time of movement and of migration.

Blackbirds gather in large flocks and loons will collect in groups in preparation for their annual trip south. Far north nesters, the geese and ducks, start passing through on their route to the south. The year-around residents of the marshes and forests speed up their activities, gathering food and storing up fat for the long winter ahead.



The quiet observer, in the mists of early morning or the silence of eventide, can see and hear much of this activity. Leaves are thinning in the woodlands making visibility better. Also the forest floor is drier and noisier, making each rustle, crack or thump of footsteps easier to detect. The bothersome mosquitoes and black flies are calling it quits for the year, which allows the nature student to watch the scene without constantly applying repellent or slapping the varmints.

For many campers, the finest time of the year is during the golden days of later summer and autumn. The air is sharp and fresh with a hint of frost and winter to come. On dry evenings, it is possible to simply flop the mat and sleeping bag out in the open and sleep with only the stars for a roof. It is a time for sitting around the campfire in the evening, telling tall tales as wood sparks weave their paths upward to disappear in the darkness.

As winter approaches

The first snowfalls, nature's early warning of winter on the way, come in October. By November, the lakes freeze over and heavy snows arrive which will not melt until the following April. Less hardy wildlife species are either long gone south or buttoned up in their dens hibernating. The tougher cold weather residents have put on their zero-weather garb and go right on living, even relishing the deeply drifted woods and frozen lakes.

And we two-legged winter travellers do exactly the same thing.

With our lightweight, insulated clothing, specialized winter camping gear, lightweight trail food and cold weather camping methods, we move out into this white, sparkling world of crisp, clear air to absorb sights and sounds which are unique. By snowshoe we can travel through thick forest and marsh areas which were difficult or impossible to penetrate on foot in the summer... or we fairly fly over the frozen lakes and packed trails with our touring skis.



That thick layer of white which covers the entire landscape also provides us with a whole library of outdoor study, told by the crisscrossing of plainly visible tracks. With the leaves gone from the hardwoods, it is possible to see farther, improving the chances of spotting a deer, moose or wolf.

Snugged down in our camp at night, warm and well-fed, we can watch the stars hanging just over the treetops, or view the great, mysterious panorama of northern lights, shooting bright fingers of light or undulating across the sky in waving, colored curtains.

The real wilderness traveller does not set out to change the outdoors, to "improve" it or fight it. He travels and camps on nature's terms, seeking to understand the way of things in the natural world and trying to fit in with that scheme.

Nature makes no apology and no attempt to hide the sequence of birth, life and death. Each species of plant, fish, bird or mammal gains its foothold on life, struggles for survival and is eventually destroyed and consumed by something else. It is a continual and constantly changing process, never static.

While man is only a visitor in the wilderness, he is also a part of the natural scheme, as much a part as the eagle, the deer or the wolf, and he exerts an effect and is, in turn, affected by the environment.

Man, because he is more adaptable and has been able to develop technology using tools, can exert a much greater effect. Since he has this ability, man must then direct his efforts to creating as little impact as possible on those other components of the natural community.

In our study of the interrelationship of the fish, birds, mammals and plant life in the wilderness, we can also gain an understanding of the interrelationship of all things. We can then determine that chemicals which pollute the air in the metropolitan areas also



drift to the forests where it affects the air and the water here. Birds, such as the eagle, migrate from the great sanctuary of the wilderness each winter, and are subject not only to air and water pollution, but also to possible poisoning of their food supply as they journey across the continent.

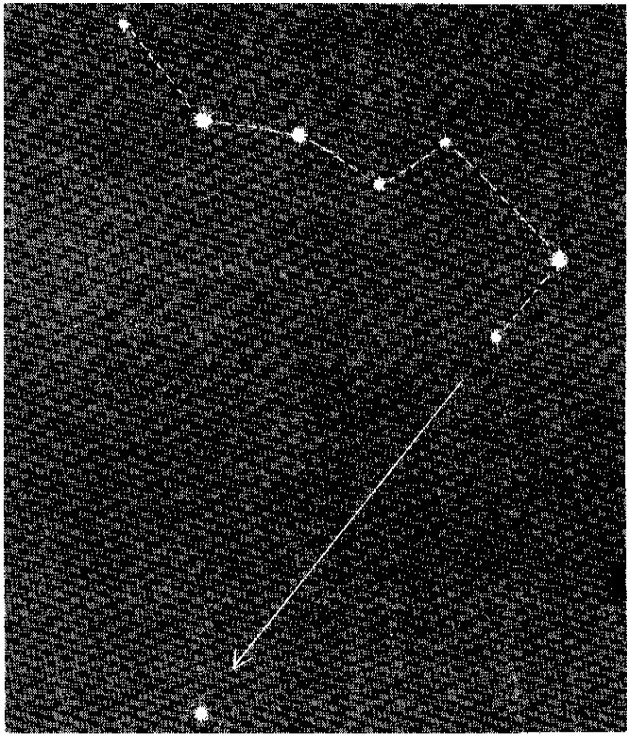
It is not enough that we set aside parks and forests for their scenic beauty. We must also be good tenants on the farm and in the cities. We must understand that those laws which affect nature are also firm laws which man cannot break without suffering the consequences.

When we see a forest area which is browsed out by too many deer or a beaver pond where the shoreline saplings are all cut, we know that it will shortly follow that the deer will die off in the first bad winter and the beaver will vanish. It is much the same with the human species; when man browses out his environment, he is also in trouble and can expect no more special favors from nature than the deer or the beaver.

The human species is quite fortunate that we are endowed with the ability not only to observe, but also to record and communicate what we see and hear. Thus we can accumulate a record, a history, which we can also study, providing a store of knowledge which gives us a sharper understanding of what we observe. Each of us, as we travel the trails, can interpret our impressions, in the light of our knowledge, and possibly add a little more to the store of information we need for our survival as a species.

But this is not all serious business. Our visits to the wild country, whether in canoes, on foot, skis or snowshoes, are fun-packed adventures. Nature has laid before us a great feast of color, sound and activity. We have only to pause and enjoy it.





The NORTH STAR has been a night navigational aid in the northern hemisphere long before the human race had any written language. It is not the brightest star but is distinct and always in the same place. Easiest way to find the North Star is to locate the Big Dipper. The stars that make up that part of the Dipper you would "pour out of" will always point to the North Star.



HIGH ADVENTURE WIND SCALE

Observations On Land	Observations On Lakes	Wind Sign	Wind Speed mph	Canoeing Conditions
Still, calm, smoke rises vertically.	Surface like a mirror	Calm	Under 1	Safe
Wind direction indicated by smoke drift.	Small ripples, scale like. 1-4 inches.	Light air	1-3	Safe
Wind felt on face, leaves rustle.	Large ripples, crests glassy, not breaking 4-8 inches.	Light breeze	4-7	Safe
Leaves, small twigs in constant motion.	Small waves begin to break; scattered whitecaps. 8-18 inches.	Gentle breeze	8-12	Safe
Dust, leaves, loose paper raised up; small branches move.	Moderate waves becoming longer; numerous whitecaps. 1½-2½ feet.	Moderate breeze	13-18	Be cautious
Small trees and bushes begin to sway	Large waves, rolling whitecaps, some spray. 2½-3 feet.	Fresh breeze	19-24	UNSAFE (GET OFF THE LAKE)
* * * * *	FOR INFORMATION ONLY		* * * * *	
Larger branches of trees in motion; whistling heard in conifer trees.	Largest waves, solid whitecaps, more spray 3-3½ feet.	Strong breeze	25-31	VERY DANGEROUS (STAY OFF THE WATER)

Is It Safe to Paddle Today?

This High Adventure wind scale is adopted from the Beaufort Wind Scale which was created in 1806 for use with sailing ships. It will help you judge wind speed for inland canoe trips. Observe conditions on land and water, to judge wind speed, and decide whether it is safe to paddle.

Although prevailing winds come out of the northwest, wind conditions on northern lakes are constantly changing. Wind velocity often increases rapidly between 10:00 a.m. and 4:00 p.m. Best travel is early morning and late afternoon during windy weather. Conditions also vary from shore lines to the middle. Obviously, long open stretches increase the opportunity for worsening conditions. Be prepared to make a quick run to shore when the breezes get “fresh.”



Some Good Books To Read

THE BIG WILDERNESS CANOE MANUAL by Bob Cary. David McKay Company.

THE NEW CROSS COUNTRY SKI BOOK by John Caldwell. Stephen Greene Press.

BARK CANOES AND SKIN BOATS OF NORTH AMERICA by Edwin Tappan Adney and Howard I. Chapelle. Smithsonian Institution.

THE SNOWSHOE BOOK by William Osgood and Leslie Hurley. Stephen Greene Press.

THE EXPLORER NATURALIST by Vinson Brown. Stackpole Books.

A FIELD GUIDE TO ANIMAL TRACKS by Olaus Murie. Houghton Mifflin Company.

A FIELD GUIDE TO ROCKS AND MINERALS by Frederick H. Pough. Houghton Mifflin Company.

A FIELD GUIDE TO REPTILES AND AMPHIBIANS by Roger Conant. Houghton Mifflin Company.

INTRODUCTION TO BACKPACKING by Roger Colwell. Stackpole Books.

SURVIVAL by Department of the Air Force.

STANDARD FIRST AID & PERSONAL SAFETY by the American Red Cross.

THE COMPLETE WILDERNESS PADDLER by John Rugge and James West Davidson. Alfred A. Knopf.

WILDERNESS COOKERY by Bradford Angier. Stackpole Books.

WINTER HIKING AND CAMPING by John A. Danielsen. Adirondack Mountain Club.

THE FUN AND CHALLENGE OF WINTER CAMPING by Bob Cary. Stephen Greene Press.

BEING YOUR OWN WILDERNESS DOCTOR by



Bradford Angier. Stackpole Books.
OPEN HORIZONS, THE SINGING WILDERNESS, THE LONELY LAND, LISTENING POINT all by Sigurd Olson. Alfred A. Knopf.
THE SPIRIT OF THE WILDERNESS by James W. Kimball. T.S. Denison Company, Inc.
THE VOYAGEUR'S HIGHWAY, RAINY RIVER COUNTRY, THE VOYAGEUR all by Grace Lee Nute. Minnesota Historical Society.
FUR TRADE ROUTES OF CANADA, THEN AND NOW by Eric Morse.
CANOE TRAILS THROUGH QUETICO by Keith Denis. The Quetico Foundation.
BOUNDARY WATERS CANOE AREA by Michael Duncanson.
CANOE COUNTRY and SNOWSHOE COUNTRY by Florence Page Jaques and Francis Lee Jaques. University of Minnesota Press.
CACHE LAKE COUNTRY by John Rowlands, W. W. Norton & Company, Inc.
BIRDS OF NORTH AMERICA by Chandler Robbins, Bertel Bruun and Herbert S. Zim. Golden Press.
A FIELD GUIDE TO TREES AND SHRUBS by George A. Petrides. Houghton Mifflin Company.
THE WORLD OF THE WHITETAILED DEER by Leonard Lee Rue III. J.B. Lippincott Company.
DUCKS, GEESE AND SWANS OF NORTH AMERICA by Frank C. Bellrose. Stackpole Books.
MCLANE'S STANDARD FISHING ENCYCLOPEDIA by A.J. McLane. Holt, Reinhart and Winston.



Okpik Winter Adventure

The Northern Tier High Adventure Base offers some of the best weather, snow conditions, facilities, and terrain for winter camping in the entire country.

OKPIK provides a highly-trained staff to help you learn winter camping skills such as: cross country skiing, snowshoeing, cold-weather clothing, snow shelters, winter camping, homemade equipment, animal tracking, cooking in the snow, winter menu selection, and ice fishing.

We offer weekend programs and a longer "Holiday Stay" during the Christmas and New Year holiday period. We also provide staff training in early December for leaders and older Scouts interested in developing their own winter programs for units, districts, or councils.

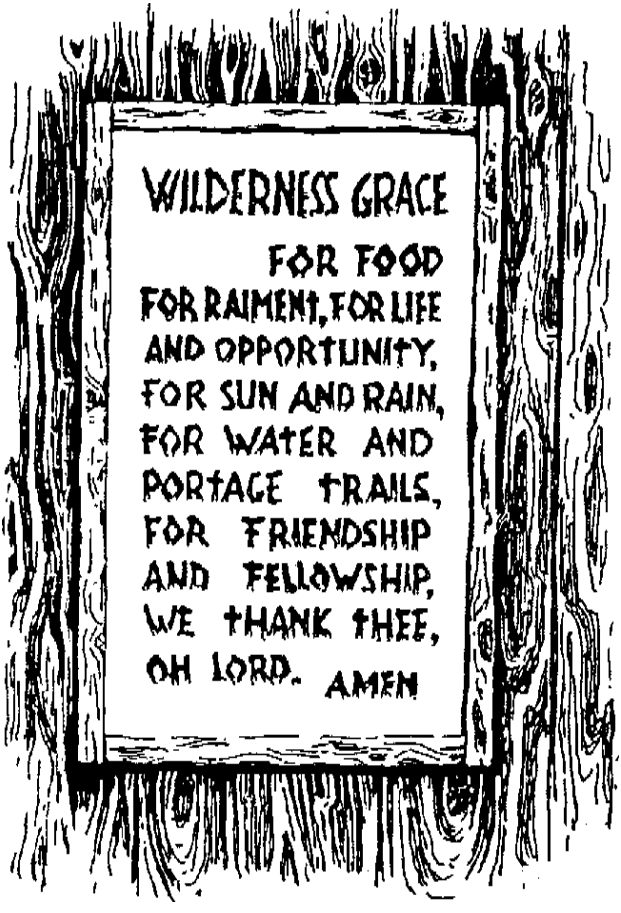
Please contact us for more information on how to plan your own OKPIK Winter Adventure.



Your Record of Sightings



Your Record of Sightings


WILDERNESS GRACE
FOR FOOD
FOR RAIMENT, FOR LIFE
AND OPPORTUNITY,
FOR SUN AND RAIN,
FOR WATER AND
PORTAGE TRAILS,
FOR FRIENDSHIP
AND FELLOWSHIP,
WE THANK THEE,
OH LORD. AMEN



NORTHERN TIER HIGH ADVENTURE
BOY SCOUTS OF AMERICA
BOX 509, ELY, MINNESOTA 55731