Boundary Waters Canoe Area Trip Plan

By David Knapp

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EDOE 564: Wilderness Trekking

Dr. Nate Helweg

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| **Hosted BWCA Fly Fishing Trip Plan** |
| **Trip Location** | Boundary Waters Canoe Area Wilderness Entry and Exit Point #27, Snowbank Lake (Lake County, MN).  |
| **Trip Goals and Objectives** | This trip is an introduction to wet boot canoeing and travelling in the backcountry with an emphasis on fly fishing in the Boundary Waters Canoe Area Wilderness. Fishing from a canoe will be taught along with techniques for finding and catching fish in the lakes. All fishing will be catch and release except for any fish kept for supplementing meals/food. Students will:* Demonstrate paddling ability and skills
* Portage effectively in a timely manner
* Be able to locate and catch fish in a variety of scenarios and for a variety of species
* Learn and utilize camp craft including campsite selection, camp cooking, fire building, water purification, etc
* Apply LNT principles to wilderness travel
* Have fun!!!
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| **Time Control Plan** | Paddling Route Statistics: * Total Distance = Approximately 37 miles
* Planned paddling average of 2.5-3 miles per hour
* Allow 20 minutes for short portages (less than 100 rods) and 30+ minutes for a longer portage (100 – 200 rods). Most portage time is loading and unloading until the paddlers become proficient at the process.

Paddling Plan:* Day One: Begin at #27 Snowbank Lake and end at Thomas Lake. Total paddling and portaging distance of of 10-12.5 miles depending on campsite selection and 13 portages. Two longest portages at 87 and 90 rods. Several short portages ranging from 7 to 54 rods (11). Allow 20 minutes for each of these for a total of 3 2/3 hours. Since this is the first day, allow 30 minutes for the two longest portages and an extra 20 minutes total for 5 hours of portaging. Paddle time of 4 hours and a one hour lunch for a total of 10 hours from the put-in to the first night’s camp on Thomas Lake. Launch by 8:00 AM. Target arrival at camp of 6 PM.
* Day Two: Rest day. Off day for fishing instruction/exploring/relaxing.
* Day Three: Begin at Thomas Lake and end at Kekekabic Lake for a total of about 6 miles. Two hours of paddling plus 5 portages of 20 minutes each for a total of 1 2/3 hours portaging. Add twenty minutes to make allowances and that gives 4 hours of travel time. Early morning departure and make new camp by lunchtime. Allow the afternoon for fishing. Launch by 9:00 AM and arrive in new camp by 1:00 PM.
* Day Four: Half day of paddling with morning for fishing. Travel from Kekekabic Lake to Missionary Lake. Total paddle and portaging distance of around 6 miles for 2 hours of paddle time. Total of 4 short portages and one long for a total of 2 hours allowed for portaging for a total of 4 hours of travel time. Launch by around noon and target arrival time of 4 PM at Missionary Lake.
* Day Five: Travel from Missionary Lake to Abinodji Lake for a total of around 7 miles. Total paddle time of just over 2 hours. Portaging 5 short portages, one long and one very long for a total of 3 hours allowed for portaging for a total of 5 hours. Allow one hour for a trail lunch gives a total of 6 hours between camps. Depart by 10:00 AM and arrive by 3:00 PM. Allow fishing time.
* Day Six: Paddle from Abinodji Lake to the takeout #27 Snowbank Lake. Total paddle distance of around 5-5.5 miles. Portage situation between Haven and Boot Lake and especially between Boot and Snowbank is a bit unclear. Possibly a very short maneuver to get between Haven and Boot Lakes and anywhere from one 82 rod portage to 3 or 4 shorter portages to get between Boot and Snowbank Lakes. Plan on up to two hours of paddling and up to 1.5 hours of portaging to be safe. Total time from camp to the takeout spot of 4 hours with a lot of allowances built in. If entering Snowbank Lake early and portages are over, allow fishing time if people desire. Also, obtain more detailed map of the route (currently using the National Geographic Trails Illustrated Map) and consult guidebooks to attempt to understand the portage situation better.
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| **Emergency Contingencies and Information** | Emergency Contact Information: In case of emergency needing rescue or medical assistance, call 911 or the local sheriff’s office.Lake County Sheriff:* (218) 834-8385

Kawishiwi Ranger District: * (218) 365-7600
* (218) 365-7561 (5/1 – 9/30)

1st Aid Information: Instructor/trip leader packs will contain a first aid kit. All participants will be encouraged to carry their own small kit as well. Trip leaders at minimum first aid and CPR certified. Goal is to have WFR certification as well. Emergency Contingencies: 1. Along route paddle, instructor will periodically check for cell signal to be able to quickly determine the fastest way to contact emergency personnel.
2. In case of injury or other emergency, assess the injury/situation
3. Develop appropriate plan to treat injury
4. Apply first aid for any injuries that can be self-treated and as able within training for more severe injuries until medical professionals take over.
5. If emergency assistance is required, use cellphone to contact local Ranger and/or Sheriff (numbers provided above) or dial 9-1-1 and provide emergency details and location. Transfer care once medical professionals are on site.
6. If a cellular signal is not available, utilize SPOT to request assistance. If SPOT does not work, then send a team of 3 for help along with assessment if conditions allow. This is a last resort as dividing a group should not happen except under the most dire of circumstances.

Foul Weather Contingencies:* Monitor weather forecast leading up to the trip.
* In the case of dangerous wind, stay in camp if possible. If out on the water, attempt to make the nearest camp. If none are practically close or if it will bring unacceptable risk to reach, make for the nearest shore. Wait out the wind until paddling conditions are safe. If wind is expected in camp, inspect trees around camp for structural integrity. Do not pitch tents in areas where it seems likely that trees/branches will break off in high wind.
* In the event of lightning, follow lightning safety guidelines. Mandatory everyone OFF of the water. Maintain a safe distance from fishing/fly rods in particular, as graphite rods are an excellent conductor of electricity.
* If wind bound or otherwise unable to move for several days, plot the shortest route back out to complete trip on schedule. Paddle days have down time built into them. If wind seems likely, then paddle earlier in the day to avoid the windiest times. Be flexible on which days are the rest day as well based on weather and expected weather.
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| **Risk Management** | * Travelling: Only trip leaders with proper insurance will be allowed to drive vehicles on trip. Obey all posted traffic laws and speed limits and do not drive late into the night.
* Weather: Monitor weather leading up to the trip. Instructor trained in weather observation and forecasting will mitigate dangers while on trail.
* Drowning: Group participants required to be able to swim. Swimming only allowed in group settings. Wear life jackets at all times while paddling.
* Hypothermia: Proper clothing is essential. In the case of wet cold weather or flipping a canoe in cold weather, group will immediately go into camp and erect shelters to stay dry. Group leaders will be prepared to start fire in all types of weather.
* Becoming Lost: Group participants required to stay within visual contact at all times or provide instructors with a detailed plan if fishing out of sight of camp. Participants will be trained to stay in one place if they feel lost.
* Musculo-skeletal injury: Portaging and paddling provide the setting for possible injury. This can be limited by proper stretching and warmup as well as using proper portaging techniques. All of this will be taught during the first day in Ely before going on trail.
* Stove safety: Instructors only will operate the stove if necessary for cooking.
* Sunburn: Use sunscreen and/or appropriate protective clothing. Stay hydrated.
* Stings/bites: Group participants allowed to bring bug spray (not in cans). Participants required to bring own EPI-pen if in danger of anaphylaxis.
* Participants required to attend pre-trip day in Ely to learn proper techniques and safety information.
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| **Permit Location and Costs** | Permits to be picked up at the Kawishiwi Ranger Station in Ely the day before by the trip leader. Place the names of both trip leaders on the permit.Cost: $10 permit fee and $16 per adult (9 adults) for a total of $154.  |
| **Menu and Cooking Plan** | * See Attached Menu
* Cooking will be done by trip leaders to allow participants more time on the water fishing. However, each participant will be required to help with two meals to learn camp craft and cooking in the backcountry.
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| **Travel Itinerary and Shuttle Plan** | Participants responsible for own transportation to/from Minneapolis/St. Paul or Duluth, MN. Rental van picked up in Minneapolis at the airport on September 5, 2018. One of the trip leaders responsible for driving the van at all times. **Day One**: Pick up participants, travel to Ely, MN. Participants responsible for meals.**Day Two**: Spend next day in Ely, pick up permit, do canoe paddling and portaging training. Check all participants personal gear, especially shoes. Meals in Ely, participants responsible for their own meals.**Day Three**: Breakfast at 6:00 AM in Ely. Participants breakfast cost covered. Travel to Snowbank Lake Access Point #27 and begin trip.**Day Four**: Rest Day for fishing or flex day if taking rest day later.**Day Five – Day Eight**: Paddle days. Take out on day eight. Return to Ely for the night at a hotel. Supper covered for this night. **Day Nine**: Return to Minneapolis. Drop people off in Duluth as necessary. Return van. Drive back home to TN.**Shuttle Plan**: Shuttle not required for this out and back loop trip. Leave vehicles parked at trailhead. Leave no valuables in vehicles if at all possible. |
| **Canoe Information** | Canoes (4) owned by my business. Kevlar canoes with portage yokes. Tow up to MN with gear and canoe trailer from Tennessee. |
| **Leave No Trace Plan** | 1. **Plan Ahead and Prepare**: A thorough trip plan with emergency and weather contingencies will help minimize risk.
2. **Travel and Camp on Durable Surfaces**: We will only camp at established campsites and use existing fire rings and tent sites. All portages will utilize existing portages and wet boot canoe principles.
3. **Dispose of Waste Properly**: Pack it in, pack it out. All campsites have toilets at appropriate LNT distances. Utilize these as far as possible. When someone needs to use the bathroom when not in camp, follow existing guidelines of a minimum of 200’ from any trail or water source. For solid waste, dig a cat hole 6-8” deep and thoroughly bury/fill the waste in the hole when done. Cover with rocks when feasible to prevent wild animals from digging it up. When possible, burn used tissue paper before burying but be aware of potential fire dangers and do not use this technique if fire is a concern. Have a special trash (Ziploc) bag for feminine hygiene products as necessary. People can pee anywhere away from water sources without digging a hole. For washing dishes, use “dirting”. Scour dishes (duff/dirt them out) with dirt, soil, and pine needles after completely removing remaining food. Carry heavy-duty large Ziploc bags to pack out any leftovers. Once dishes have been scoured clean, use boiling water for sterilization. Also carry a pot scrubber and small amount of biodegradable soap for use as necessary of cooking dishes/utensils.
4. **Leave What You Find**: Do not alter the landscape in any way. Leave all natural or cultural/historical objects where they are found.
5. **Minimize Campfire Impacts**: Only use small wrist-sized and smaller pieces of wood. Utilize existing fire rings only. Only use dead and down wood. Never cut live trees or branches for firewood.
6. **Respect Wildlife**: Maintain a respectful distance from all wildlife including any moose, bears, or wolves the group might be lucky enough to see. Do not feed wildlife and always properly store food following bear guidelines. Hang food pack away from camp at least 12 feet in the air and 4 feet away from any tree trunks or large branches.
7. **Be Considerate of Other Visitors**: Treat others as you would want to be treated. Keep noise to a minimum, no yelling or otherwise disturbing the wilderness atmosphere. Yield to others on portages. Wait for others to clear out of the way before landing/launching on portages.

**Education**: To accomplish the goals of LNT, an educational briefing to the 7 principles listed above will take place on the day in Ely before going out on trail. Participants will be given a handout summarizing each point and how we will strive to observe the guidelines as a group.  |
| **Gear and Equipment Including Water Treatment Plan** | Group Gear:* For driving:
	+ Truck and gear/canoe trailer with 3 canoes
	+ Trailer Lock
* For paddling (gear hauled in gear trailer).
	+ 4 Kevlar Canoes
	+ Canoe Repair kit including epoxy
	+ 10 paddles (1 per person plus 1 extra)
	+ 9 PFDs
	+ Crazy Creek Camp Chairs (minimum 1 per canoe)
	+ Duluth Packs (1 per canoe plus bear/food bag) and liners
	+ Emergency Whistle (1 per canoe)
	+ Maps and Compass + waterproof map bag
	+ In locked floating/waterproof box, also include all medical forms/information and copies of ID for each student and an emergency SPOT device plus instructor cellphones. Extra batteries and/or solar charger.
* For camping (Including Water Treatment Plan)
	+ 3 three man UL backpacking style tents (adjust number during packing for participants wishing to use their own gear)
	+ Biffy Bag including TP, small digging tool, and hand sanitizer
	+ Bear/Food Bag with rope, biners, and pulley
	+ Camp Saw
	+ Our group will utilize a Sawyer Gravity Filtering System (4 liter). Backup will include both a Sawyer Squeeze filter and chemical tablets.
	+ 550 Paracord
	+ Ultralight Camp Tarp (12x16)
* For Meals
	+ Food
	+ Backup stove for cooking if fire is not an option (MSR Whisperlite) and fuel
	+ Matches and lighters (at least two ways to start fire)
	+ Group mess kit includes 3 large pots, lids, pot grabber, plates, forks, spoons, and knives, cups
	+ Aluminum foil
	+ Trash bags
	+ Ziploc bags
	+ Spice bag/kit

Personal Gear/Clothing List (provided to participants prior to trip):* Money for meals not provided by the group
* Fishing license
* 1 compact sleeping bag (for temperature down to 25 degrees)
* Insulite pad or Thermo Rest mattress
* 1 pair of polarized sunglasses with sport wrap (floating type best)
* 1 chapstick (with U.V. protection)
* Small sunscreen-- stick or tube-- and (optional) bug spray, but no cans
* Personal hygiene products (biodegradable soap only)
* Small camp towel
* 1 quart wide-mouth water bottle, collapsible Nalgene bottles are ideal (water is plentiful so larger bottles are unnecessary and get in the way)
* Headlamp
* Small pocket knife or multi tool
* Hip pack or small day pack
* Fishing/fly rod, fly reel and spare spool (one floating line one sinking) or spinning reel, small box of lures or flies, leader/tippet, wire bite guard for toothy fish, forceps, extra split shot, optional: jaw spreader for dealing with pike, rod tube
* 4 shirts: 2 t-shirts, 1 long-sleeved polypropylene; 1 wool or fleece jacket
* 1 pair pants: quick drying, loose fitting, not too long. Nylon fishing pants best.
* 1 pair shorts (loose fitting)
* Swimsuit (guys can use their swimsuit for their shorts or vice versa)
* 3-4 pair quick-drying underwear (can wash clothes in lake during trip)
* 3 pair wool hiking socks
* 1 pair boots: High top broken-in boots that are **NOT** waterproof with mesh panels are ideal. Boots will get beat up and will constantly be wet.
* 1 pair of lightweight camp shoes or Chaco type sandal
* 1 waterproof rain jacket and rain pants
* Check the weather-- if it will be chilly then pack a small winter hat and lightweight gloves
* Other personal equipment if desired \*(paddle, bivy sack, hammock, personal flotation device)

Extra Fishing Gear: Instructors/guides bring extra flies, leaders, tippet, forceps and other gear including two backup fly rods.Personal gear/equipment available for rental for an extra fee from Piragis Outfitters in Ely. Group participants are responsible for communicating this need ahead of time to trip leaders so arrangements can be made.  |
| **Budget** | Incoming* Trip Fee of $1100 per participant for 7 participants
* Total: $7700

Outgoing* Vehicles (allow extra for gas in case of higher prices)
	+ Van Rental: $1686.93 at Enterprise
	+ Drive Truck pulling gear trailer and canoes. Allow 2500 miles. Gas Buddy Trip Cost showing $277.41. Allow $500 for gas.
	+ Gas Buddy Showing $60.78 for the rental van gas costs. Allow $150.
	+ Vehicle Total: Allow $2614.34
* Permits
	+ Total: $154
* Hotels
	+ $95/night for 5 rooms at 3 nights
	+ Total: $1425
* Food
	+ Eating out two meals covered by group: $270
	+ Trail Food: Allow $500
	+ Total: $770
* Instructor Compensation: $1000 per instructor
* Total Outgoing: $6963.34
* Currently have a $736.66 surplus to reinvest in the business/gear. Hopefully more if gas prices stay down.
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**Menu**: See additional notes below

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| Breakfast | Big breakfast in Ely at 6:00 AM.  | Hashbrowns/Eggs Pack own TL at breakfast for exploring | Loaded Oatmeal (NOT instant, include nuts, dried fruit, peanut butter, brown sugar options) | Blueberry Pancakes, Peanut Butter, Honey/Syrup, Scrambled Eggs | Loaded Oatmeal and Bagels w/PB and Nutella | Biscuit & Gravy, Scrambled Eggs |
| Lunch | TL | TL | Trail Lunch plus Nutella/bagels | TL | TL | TL or in Ely  |
| Supper | Spaghetti with marinara sauce and TVP. Bread. | Beans and Rice | Chili with chips and cheese | Freeze Dried Dinners (Offer options ahead of time for participants to choose | Burritos w/rice and beans, cheese and salsa | Supper in Ely |

Notes on Food:

* Trail Lunch includes: Granola Bars, Cheese, Bagels or Crackers, Peanut Butter and/or nuts, Dried Fruit, Jerky (vegetarian and meat options), Chocolate bars
* Carry enough dried rice/beans for 2 extra days.