

MONTANA HIGH ADVENTURE BASE LEADER'S GUIDE

WELCOME!

We are excited to have you join us for a Montana High Adventure Base (MOHAB) expedition in the Bob Marshall Wilderness!

MOHAB is based out of the Boone and Crockett Club's Theodore Roosevelt Memorial Ranch near Dupuyer, MT. In addition to lots of fun and the appreciation of the beautiful scenery that will surround us, you will experience an advanced expedition program that will build youth leadership, strong outdoor skills, and expedition management. This is accomplished through the [MOHAB Curriculum](#) which focuses on 1) Wilderness Trekking, 2) Wilderness Packrafting, 3) Expedition Leadership, and 4) Conservation. Furthermore, our instructors will emphasize the principles of ultralight backpacking to maximize your comfort, safety, and enjoyment in the wilderness.



PURPOSE

The purpose of this course is to foster an appreciation of conservation and expedition leadership through immersion in the wilderness. At the conclusion of the trip, participants will feel more comfortable in the wilderness and have the necessary skills to help plan and execute expeditions on their own.

PREREQUISITES

Backpacking Experience

Every participant is encouraged to have some backpacking experience. In addition, you should be very familiar with your gear and how to use it prior to your MOHAB expedition. Upon your arrival to MOHAB, you'll go through a rigorous equipment shakedown that will help you lower your pack weight, become familiar with the group gear issued by MOHAB, learn navigation and route planning procedures, and practice basic trekking and packrafting skills.

Physical Fitness

Your fitness will be tested on this trip so preparing in advance is crucial to your trek. The following fitness regimen is recommended:

- 6 months prior to your MOHAB trek: day hiking on steep hills twice a week for at least one hour per session (foundational conditioning).
- 4 months prior to your MOHAB trek: day hiking on steep hills twice/week with a 20 pound pack for at least one hour/session (strength training).
- 3 months prior to your MOHAB trek: day hiking on steep hills twice/week with a 30 pound pack for at least one hour/session (strength training).
- 2 months prior to your MOHAB trek: day hiking on steep hills once/week with a 20 pound pack for at least three hours/session (distance, endurance, and foot conditioning)

Please visit our [Resources](#) page for more detailed instruction on our training and fitness recommendations.

Medical Evaluation

Parts A, B, and C of the BSA Annual Health and Medical Record is required. MOHAB has the exact same requirements as Philmont. [Download and use this form.](#)

Shakedown Hike

All participants will be required to participate in a shakedown hike at MOHAB with fully loaded backpacks. MOHAB reserves the right to reject participation of any individual, youth or adult, for inadequate physical condition as evaluated solely by that participant's performance on the shakedown trek. The shakedown trek will be a fast-paced, 1-2 hour trek on steep terrain with your fully loaded pack.

Swimmer Test

All participants must arrive with BSA Swimmer Classification, as evaluated by a certified American Red Cross Lifeguard or BSA Lifeguard within a one year period prior to your MOHAB start date. Swimmer classification is required because of the wilderness nature of this expedition and the potential risk of having to swim in wilderness rivers. We do not conduct Swim Checks at MOHAB - please bring your certification letter with you. The swim test certification form is available on the [MOHAB Resources Page](#).

WHERE IS MOHAB?

MOHAB (388 Upper TRM Ranch Rd, Dupuyer, MT 59432; call if you have questions) is located 20 minutes west of Dupuyer, MT. If you are arriving by air we recommend flying into Great Falls International Airport. Shuttles to the airport as well as trailhead shuttles (see below) are not included in the premium package. Shuttles to and from the airport are \$660 per trekking crew (12 participants) and can be coordinated with Camp Director Luke Coccoli, [406-472-3311](tel:406-472-3311). If you are arriving by vehicle follow highway 89 north of Great Falls to reach Dupuyer, MT. Once there head west (towards the mountains) on Gillette Drive (aka Dupuyer Creek Road) for about eight miles until you reach a fork in the road. Take a left and drive less than a mile until you see the TRM Ranch/RWCC sign, then turn right. After you pass the TRM Ranch main entrance, stay left and drive past the upper ranch house and continue on to the Center. A map, directions to camp, and more details about the property can be found on the [MOHAB Resources Page](#).

Additionally, you can follow the appropriate links below for exact google maps links that do work and will take you directly to the ranch.

[Coming from Great Falls](#)

[Coming through Browning](#)

[Coming through Choteau](#)

These are the only three possible ways to get to the ranch, so please use these links.

TRANSPORTATION WHILE AT MOHAB

If you opted for one of our packrafting programs, transportation is needed to reach the trailhead and is not included in your participant fees. We can shuttle your packrafting/trekking crew to the start of your MOHAB adventure from the ranch and back. Shuttle rates are based on a mileage and vehicle-use basis therefore vary depending on which trailhead “drop-off” and “take-outs” your crew chooses. You will be charged for your shuttle once all trek logistics have been completed at base camp via a Square device or you can pay by check. We prefer to use our vehicles so MOHAB is not liable for any damage or unforeseen circumstances with any personal or rental vehicles. In order to arrange shuttles, including to and from the airport, please contact Camp Director, Luke Coccoli at (406) 472-3311 or luke@boone-crockett.org.

CURRICULUM

See: [MOHAB Curriculum](#).

By the end of the course, participants will be familiar with, and will have skills relating to:

- **Wilderness Trekking techniques and skills:**
 - Principles and gear of ultralight backpacking
 - Expedition cooking and nutritional requirements for multi-day expeditions
 - Risk management, safety procedures, and decision making
 - Off-trail and on-trail, river corridor, forest, and mountainous alpine navigation tactics
 - Techniques to manage inclement weather through preparation and leveraging the latitude of your gear
- **Wilderness Packrafting techniques and skills (packrafting treks only):**
 - Equipment use and selection
 - Paddling, inflating, securing gear and other crucial packrafting skills
 - Risk management, safety procedures, and decision making
 - River corridor and on-the-river navigation tactics
 - Incorporating packrafting into your wilderness travel
- **Expedition Leadership principles:**
 - Expedition behavior including managing conflict and service to the crew
 - Developing sound methods to organize your gear and provide opportunities to learn new skills

- Learning to reach well-constructed decisions quickly and knowing what steps must be taken for action
- Meeting challenges with courage and the mindset that they are a learning opportunity
- Recognizing your value to the team, knowing your limits, and being of service to the crew
- **Conservation foundations:**
 - Further develop the “Leave No Trace” ethic and learn how to minimally affect the landscape
 - Understand the value these “wild places” offer to humans and the health of the ecosystem
 - Experience the flora and fauna of the Bob Marshall Wilderness Complex and learn how it is affected by human activity

SCHEDULE

Typical schedule for a one-week trip: (Schedule for a two week trip is basically the same except for the on trail/river section lasts 12 days)

PLEASE NOTE EXCEPTIONS FOR EACH [TRIP LENGTH](#).

Sunday:

Please plan to arrive at MOHAB by 5 pm

- 5:30 pm - Introductions
- 6:00 - Dinner
- 7:00 pm - Route Planning
- 11:00 pm - Lights Out

Monday:

- 8:00 am - Breakfast
- 9:00 am - Meal Packaging, Group Gear distribution, Bear Awareness
- 12:00 pm - Lunch
- 12:30 pm - Shakedown Hike, Final Gear Inspection, Weather Hazard training
- 6:00 pm - Dinner
- 7:00 pm - Packraft training, River Safety, Expedition Leadership
- 10:30 pm - Lights Out

Tuesday:

- 7:00 am - Breakfast
- 8:00 am - Final packing and leave for the trip

- 9:00 am - Stillwater Training

Tuesday - Saturday: In the Bob Marshall Wilderness Complex

Sunday:

- 8:00 am - Breakfast
- 9:00 am - Debrief
- 10:00 am - Checkout and packing
- 11:00 am - Departure

Note: The Checkout time of 11:00 am is **MANDATORY**. MOHAB has crews arriving every Sunday at 5 P.M.(sometimes earlier) and requires time to prepare for the next crew.

ROLES AND RESPONSIBILITIES

Trek Director's Role: The Trek Director's primary responsibility is health and safety, and provision of final decision making authority. In addition, the Trek Director will be responsible for implementing the MOHAB curriculum, and advising and mentoring the crew in route planning, decision making, and skills training. This is a volunteer position and the youth participants will receive training and instruction while at MOHAB basecamp that will prepare them to be the leaders of their own trek. The Trek Director is not an outfitter role and participating venturing crews and Boy Scout troops will provide their own adult supervision.

Youth Instructor's Role: MOHAB may provide your crew with one or more Youth (age 15-17) Instructors. Youth Instructors serve as mentors and examples for youth participants. In addition, they will also assist the Trek Director in preparing for the trips, helping to facilitate discussion, and conduct training sessions.

Youth Participant's Role: Youth participants ("Scouts") have the responsibility of preparing for their trek with adequate gear that meets MOHAB requirements, good physical conditioning, and enthusiasm for their adventure! The Youth Participants will be expected after proper training at MOHAB basecamp to demonstrate an appropriate amount of leadership, initiative, and decision making while on the trek. Most important, Youth Participants are expected to demonstrate positive expedition behavior consistent with Scouting Aims and Methods, the Scout Oath and Law, and the Expedition Leadership curriculum taught as part of the MOHAB program.

Scout (Troop) Leader's Role: Your role is to relax, have fun and enjoy the experience. Stand back and let MOHAB staff, and your youth participants, take the reins. We certainly want you to be a positive and contributing member of the trekking crew. However, MOHAB's focus is on developing the Patrol Method - please let the scouts in your crew lead the trip with guidance from MOHAB staff. Our model allows the scouts be in charge, and we allow the trials and challenges (within limits of health and safety of course) that come with that responsibility.

Please stand in the background and allow the process to happen. Your greatest role on this trip is to be a source of encouragement to your youth!

Expedition behavior: Please make sure to act in a manner that embodies the Scouting principles of honor and respect while on the trip. Be understanding that people handle obstacles in different ways. Please remember to contribute to the group and offer up your talents. Do your fair share and speak up if you feel called to do so. Remember the group is here to support you and we are all stronger if we can work together as an effective team.

Group Dynamics: *Youth-led.* On the trip we will be giving the scouts the flexibility to dictate their own experience within the agreed upon parameters. They will be responsible for managing the pace, navigating the route, and making decisions as long as it is within the framework we provide. The Trek Director will be on the trek to ensure safety procedures are being met and to provide training, teach skills, and offer advice. As long as the scouts are making sound decisions and on schedule the trek leader will be largely behind the scenes and intervene when asked or when necessary. Dysfunctional crews should expect their trek leader to be much more involved and vocal, and there will be less leeway on the trek. There will be training before and during the trek to prepare your crew to be leaders and even the most dysfunctional crews should expect to be running smoothly by the end of the trek.

For those of you who are coming in a group, you can start now by outlining crew roles and responsibilities while on the trek so that the instructor knows who to communicate with. The time you spend now practicing with possible scenarios and outlining roles and responsibilities will serve you well in the wilderness. Before coming to MOHAB, please make sure that you have elected a *crew leader* who will serve as the lead scout for this trek.

RISK ADVISORY

The Montana High Adventure Base is located in the Northern Continental Divide Ecosystem adjacent to the Bob Marshall Wilderness Complex in Montana.

The following table presents hazards and risks unique to the area. This list is not exhaustive and does not necessarily represent the most likely or prominent hazards and risks.

Hazards	Potential Risks
Heat & sun exposure	dehydration, heat exhaustion, heat stroke, sunburn
Cold, wind, & rain exposure	hypothermia
Extreme mountain topography	overexertion, joint and muscle strain

Off trail travel	wounds from contact with, or slips/falls in undergrowth
Rough terrain - talus, scree, etc.	slips and falls, foot/ankle/knee injuries
Black & grizzly bears	food protection, bear attacks
Biting insects, grass and tree pollen, & non-poisonous, plant irritants	allergic reactions, infections resulting from scratching irritated areas, insect-borne diseases (e.g., from ticks, mosquitoes)
High altitude	headache, nausea, loss of appetite, dizziness, acute mountain sickness and related altitude conditions
Wilderness rivers, cold water, swift water	hypothermia resulting from immersion in cold water, drowning or injury resulting from uncontrolled swims / entrapment in river debris

The MOHAB staff and crew has been trained and strives to mitigate these hazards by emphasizing safety above all else. Participants who have worked on improving their fitness prior to the trip, are familiar with their gear, have practiced trekking and packrafting skills, and have a plan for meeting hazards will be safe on this trip. We advise all participants to take this opportunity seriously, fully conscious of the huge opportunity for growth and learning but also well aware of all risks associated with wilderness travel. On the trek, participants must be willing to decisively follow directions, have the necessary level of fitness, basic trekking skills (systematically packing your pack, pace management, basic navigation etc.), and camp skills (fire making, shelter set up, water treatment familiarity, cooking experience, bear bagging techniques, etc.), and participants must take responsibility for their own health and safety in order to succeed and be safe on this trip. Being prepared in advance for this trip is crucial to safety and success. Parents, guardians, and participants are advised that journeying to and from MOHAB does involve inherent risk and exposure to injury and/or illness.

MOHAB staff has been trained in Wilderness First Responder, Wilderness First Aid, CPR, Swift Water Rescue, and accident prevention, and are ready to assist your crew in recognizing, reacting to, and responding to injury or illness.

The equipment provided by Montana High Adventure Base is to be cared for diligently. The Montana Council reserves the right to bill participants for equipment they lose or damage due to negligence.

HEALTH ADVISORY

High Risk Health Conditions in Remote Environments: MOHAB expeditions take place in one of the remotest environments in the Continental United States. While we carry satellite communications devices (e.g., SPOT beacons), rescue operations are complex and subject to delays of up to several days depending upon weather, terrain, and other environmental factors. Therefore, if, upon consultation with our medical advisors, we deem that a participant's pre-existing health condition might pose unnecessary risk to the safety of the expedition, we reserve the right to refuse participation.

Exceptional Fitness for Rough Terrain at High Altitudes: MOHAB expeditions take place in extremely rugged, mountain environment. Steep trails, high altitudes, steep and difficult off-trail travel over scree, talus, and undergrowth, and sustained long walking distances requires exceptional levels of cardiovascular fitness, muscular fitness, foot (walking) conditioning with a heavy pack. Fitness will be evaluated on a shakedown hike, and we reserve the right to exclude participation if a lack of fitness by any participant is observed during the shakedown. No exceptions to BSA mandated obesity guidelines will be granted under any circumstance.

PRE-COURSE COMMUNICATION

You can contact the below people regarding questions:

- Peter Jones, Program Director, Peter.Jones@Scouting.org
- Luke Coccoli, Camp Director, luke@boone-crockett.org
- Stephen Miller/Seth Swango, Trek Director, 315.mohab@scouting.org

Most questions can be answered via our website, montanahighadventurebase.com. There are course descriptions and guidelines as well as a Resources tab that has a lot of useful information.

ANTICIPATED WEATHER AND ENVIRONMENTAL CONSIDERATIONS - Northern Rocky Mountains

Overview: Summer trekking in the Bob Marshall wilderness is usually accompanied by warm days and cool nights. Late summer (end of July through September) can be accompanied by strong thunderstorms, and rainstorms although not particularly common are a necessary consideration throughout the whole season. Alpine weather systems are unpredictable and can change in the blink of an eye. Preparing for these types of weather systems and learning how to read the signs will help you manage weather systems in the future. The best way to manage river travel and precipitation in an alpine environment is to have lightweight (extremely light) gear. This will make your pack lighter but it also means that **when** you get wet your gear will dry

quicker and the sooner you can be warmer.

Temperatures: As the snow melts and the rivers rise, temperatures steadily increase. In early June weather can still be chilly and precipitation can bring sudden drops in temperature. By late June and into July, the temperature has increased steadily and the days are favorably warm with cool nights; however seldom and sudden cold spells are not uncommon. During this part of the season, layers are a necessity. Layering doesn't mean bringing your winter jacket to put on during the coldspell - it means that all of your gear when combined appropriately has the latitude to keep you cool during the days and warm during the nights. The gear list we provide has taken the expected weather patterns into consideration and if followed your gear will have the diversity to keep you comfortable on the trip.

We will be traversing the Bob in elevations ranging from 5000 to 8000 feet. In the summer months, daytime temperatures range from the 30F to 90F with the average around 65F. For an estimate on the expected temperatures look up the weather for Dupuyer, MT. Remember temperature drops by about 2-3F for every 1000 feet of elevation gain. The Theodore Roosevelt Memorial Ranch is located at about 5000 feet and there is a possibility your trek will take you up to 9000 feet.

One thing to note is that while in the field it is important to sense weather conditions before they arrive and change your clothing in advance to meet that weather. Staying dry is one of the biggest keys to staying warm. Practice packing your pack so you can access the clothing you need if the weather were to suddenly change.

Precipitation: In the summer season, we expect most days to be dry and sunny; however, we will prepare for the occasional thunderstorm. These can be intense with bursts of hail and heavy rain. We will prepare for the presence of these storms on our trip.

Terrain Types: Trekking will be mostly on well-maintained trails throughout the Bob Marshall wilderness; however, off-trail navigation and travel will occur. For those who are opting to do the packrafting trips, off-trail travel is inevitable to connect legs of the trip. The terrain in the Bob varies with elevation and for most of the trip you will encounter a combination of mountainous alpine with thick forests higher up, and down in the riverbeds there will be meadows surrounded by forests. For pass crossings, you will encounter exposed rocks, high winds, and limited tree cover. Shallow yet possibly swift stream crossings may be necessary and adequate preparation will be devoted to this technique. By the time you start your trek, most of the snow should recede; however, up high it is possible to run into patches of snow.

Daylight: Nights, despite the cold, are over quickly with daylight beginning around 5 AM and useful light lasting until 10 PM. This will give you the opportunity to cover a good amount of ground each day as well as enjoy some fun time in camp. From fishing (bring your fishing gear - the fishing is incredible) to learning new skills, the extra daylight is a nice bonus.

Wildlife & Insects: The Bob Marshall Wilderness is home to a diverse ecosystem that is home to grizzly bears, black bears, elk, wolves, and even rattlesnakes. Although very rare, negative encounters with these animals are possible. Proper training and emphasis will be given to handling these situations and strict protocol will be followed to ensure safety. Each group will be given enough “bear spray” and will be taught how to use it. Mosquitos should not be a huge issue; however, a headnet and insect repellent should be brought by all participants.

Elevation and Altitude: Days spent at higher elevation can be taxing on the body resulting in shortness of breath and decreased fitness. Altitude sickness can be common for travelers from sea-level. Since most travel will be below 8000 feet, the effects of altitude will not be as prevalent as at higher elevations. Nevertheless, during pass crossing and at other times, elevation may be a factor and participants are encouraged to work on their fitness (especially at higher elevations) before the trip.

GEAR CONSIDERATIONS

Target Pack Weight: Your target pack weight without food, water, or packrafting equipment should be less than 15 pounds. An easy way to do this is to buy the lightest possible items on the gear list and bring only that gear. Once we add in food and water (and packrafting equipment) the actual pack you will carry will be closer to 40 pounds. Practice hiking with this weight to increase your fitness.

Keeping gear dry: Wet gear equals cold gear. When gear becomes wet it loses its insulating ability and becomes very heavy. This is bad on two fronts; gear will no longer keep you warm and it weighs more so you are spending more calories carrying it around. It is important to keep all of your gear dry, though this is especially hard if you are doing the packrafting course where contact with water is inevitable. Important care will be placed on keeping your gear dry so we encourage you to have dry bags to store all of your gear. Additionally, we recommend having a pack liner, such as, a thick trash bag, large drybag, or similar on the inside of your pack as a first line of defense.

DETAILED LOOK AT THE INDIVIDUAL BACKPACKING GEAR

Suggestions are listed below but are not by any means the only option.

A lot of gear can be acquired affordably by looking for deals online, if you subscribe to emails some will even offer additional discount coupons. Check sites like Sierra Trading Post, The Clymb, Steep and Cheap, go to REI garage sales, etc. Good gear doesn't always mean expensive gear.

Clothing

Lightest possible* Long synthetic sleeve trekking shirt (max 6 oz): Material should be very light and breathable woven nylon or polyester, and be resistant to insect bites. The material

must dry quickly and wick moisture off of the skin. Shirt should have long sleeves with high UPF (sun)

protection to protect against harmful UV rays. Button-up style and sleeves offer ventilation options. A collar offers extra sun protection at high altitudes and some pockets (not too many so that they add significant fabric weight) are a nice bonus.

Suggestions: [REI Sahara Tech Long-Sleeve Shirt](#), [Columbia Silver Ridge Shirt](#), [Coolplus F.O.M.](#)

Lightest possible* Trekking pants (max 10 oz): Material should be very light and breathable woven nylon or polyester, and be resistant to insect bites. The material must dry quickly and wick moisture off of the skin. Built in belts simplify the process and convertible pants to shorts are an option as long as they don't add significant weight.

Suggestions: [Columbia Silver Ridge Convertible Pants](#), [Mountain Khaki Granite Creek Convertible Pants](#), [REI Sahara Convertible Pants](#)

Lightest possible* Underwear (max 3 oz): Tight fitting athletic underwear such as spandex shorts minimize chafing. Synthetic underwear will dry quick and wick moisture away from the skin.

Suggestions: [Exofficio Give-N-Go Boxer](#) as well as any other Exofficio underwear, [Nike Core Compression shorts](#), [Patagonia Capilene](#)

Lightest possible* Mid-weight, full cushion, Merino wool trekking socks (max 2.5 oz): Thick socks provide good blister prevention and can be much warmer during cool nights or chilly mornings especially when wet shoes must be worn. Thick socks provide extra warmth and manage moisture during stream crossings.

Lightest possible* Trail running shoes with an aggressive lug sole (not waterproof) (max 32 oz/pair): The lighter the better. They will dry faster, you will spend less calories walking, and your feet will hurt less. If you keep your pack weight within the constraints provided you won't need the extra stability provided by a hiking boot. Absolutely no GORE-TEX or other waterproofing; this material makes your shoe function like a bathtub rather than letting your feet breathe. We are crossing enough streams that no matter what your feet will get wet. We want the water to drain out once we are on land, not pool in your shoes.

Suggestions: [La Sportiva Helios SR](#), [Hoka Challenger ATR](#), [Vasque Pendulum II](#)

Lightweight/Lightest possible camp shoes: A cheap pair of flip flops from Walmart or something similar is all that you need. The point of these shoes is to dry and air out your feet while in camp. They are not for use on the trail or for while you are packrafting.

Cotton Bandana (max 1 oz): Great for offering additional sun protection for the neck and face. Ideal sun block to be worn over face to block UV rays that reflect off the water surface. Has multiple camp uses such as a hand towel, washrag, etc. Look at the "Buff" neck gaiters for a

versatile option.

Baseball Cap (max 3 oz): This is pretty self-explanatory - no one (not even you) wants to see your hair after a few days on the trail. Also, there is no sense in frying your scalp and face. You'll need those later in life. It can be worn under your jacket hood during a driving rain to protect face and eyes.

Items worn or carried

Pea-less Whistle on neck lanyard (max 0.5 oz): Necessary for river travel and short distance communication. Worn at ALL times. Pea-less inhibits freezing or damage. Fox 40 is recommended.

Lightweight trekking poles (optional): Should be collapsible so that they can be easily attached to your pack while scrambling or bushwhacking.

Sunglasses attached to retaining strap (max 1 oz): Sunglasses are needed for river travel to protect your eyes from UV rays that bounce off the water. A retaining strap ensures they won't become lost, caught on brush, or knocked off in a rapid. **Polarized** are recommended as they cut down on glare, will help you to see routes while packrafting, and help you with your fishing.

Compass: Learning to navigate in the wilderness is an art - an art best realized with proper tools. 2-degree gradations or smaller. Only two needed per crew.

Storm Clothing

Lightest possible* synthetic long underwear top (max 5 oz): Needed as base layer. Great to wear to bed or have to put on during chilly mornings.

Lightest possible* waterproof-breathable rain jacket and pants (max 16 oz): Rain gear doubles as a dry top and pants for river travel so highly waterproof gear is a must. It will be cold on the river and this will help to keep you warm. Jacket and pants must be breathable to accommodate hiking and paddling while being worn.

Fleece hat or balaclava & fleece gloves (100-200 weight) (max 4.5 oz): Great to wear to bed or on chilly mornings. Fleece dries quickly after becoming wet.

Trail Gear and Clothing (keep this gear accessible in outside pockets or near the top of your pack)

One 1.0-1.5 liter collapsible water bottles (e.g., Platypus style) - no hydration systems / hoses (max 3 oz) and one Hard body water bottle (e.g., Nalgene 1 L): Water is an obvious

key to avoiding dehydration, and having two of this size ensures that you have enough capacity to carry water between water stops. Hydration systems and hoses add unnecessary weight - there will be plenty of opportunities to drink water so drinking while walking is not necessary. The primary use of the Nalgene will be to fill up the platypus in low water conditions. The ultralight way to do this would be to carry two - three Nalgene's per troop.

Toiletries; toothbrush, toothpaste, hand sanitizer, sunscreen, personal meds, toilet paper (repackage these into small containers so you have just enough for the trip) (max 4 oz): Hygiene is perhaps the most important factor in staying healthy and avoiding sickness on a trek. Only bring as much as you need as excess toiletries lead to unnecessary weight.

Raincover for Backpack (optional): This will serve as an extra layer to keep your pack dry while on the river. It will also keep your pack dew free in the mornings.

Insect repellent (Naturapel or 30%+ DEET only) (max 1 oz): We do not expect to encounter too many mosquitos but you will want it when we do.

Insect headnet (max 1 oz): Critical piece of equipment if we have to camp or travel in a highly infested area. Repellent works for awhile - but you can only carry so much! Solution: don't let those little bug(gers) get to your face, cover up with long pants and shirt, and don't forget a headnet!

First aid supplies (max 2 oz): about a dozen assorted band-aids and other minor wound care supplies, 3 yd of first aid tape, acetaminophen 500mg (x12), ibuprofen 200mg (x12), benadryl (x6), loperamide (x6), epi pen if you have allergies that can lead to anaphylactic shock, a small bottle of dermabond (superglue) for wound closures, and a tincture of benzoin ampules for increasing the adhesiveness of tape. A combination of an over-the-counter analgesic for pain and an over-the-counter anti-inflammatory to stop swelling can handle most scenarios just as well as prescription medications. You never know what you may suddenly become allergic to, Benadryl handles virtually all allergies.

LED headlamp (the type that take 2-3xAAA's or 2xAA's), with one set of extra batteries (max 2 oz): Don't expect to be doing too much travel in the dark, though a headlamp is useful in camp. You don't need the newest and greatest; all you need is something powerful enough to navigate from the fire to your tent and get situated for bed - and if nature calls during the night.

Firestarting kit containing a magnesium striker and waterproof firestarters: If you are on the packrafting trip, there is a high probability some of your gear may become wet. If inclement weather arrives the first thing you will want is a fire. If your fire-starting gear is wet you have a problem.

Camp Gear and Clothing

Backpack (55-70 liter size, so you can carry bulky group gear if needed) (max 40 oz): Get one with some waterproofing, yet make sure it is lightweight. Internal frame is best. We are not carrying enough weight that an external frame is warranted.

Durable Packliner: Waterproof and sized to fit whole pack. **Used to keep sleeping bag and insulating clothing dry.** Use one large dry bag or several dry bags within your pack to keep everything dry.

Sleeping bag (30F rating, down or synthetic) (max 32 oz): Your sleeping bag is your last line of defense against the cold. Get a good one, take care of it, and if it is down make sure it stays dry.

Sleeping pad $\frac{1}{2}$, $\frac{3}{4}$ or full length (max 14 oz): Serves as a means of comfort and insulation against the cold. Can be inflatable (as long as it's durable) or foam.

Ground cloth (2.5 feet x 7.0 feet, 2mil painter plastic, mylar emergency blanket, Tyvek, etc.) (max 3 oz): Since the shelters we provide are floorless, a personal ground cloth is needed to keep your gear clean and free from morning dew. Should be large enough to accommodate your sleeping bag and other gear kept in shelter. An easy and cheap way to do this is for a crew to split up a roll of Tyvek.

Lightest possible* synthetic long underwear bottoms (max 7 oz): As expected, they accompany the top and are a great baselayer or sleeping item.

Warm mid-layer jacket (200 weight fleece or high loft synthetic or down) (max 10 oz): A camp jacket that is warm is the main key. Also remember you will be wearing this by the fire so something durable is nice.

2nd (spare) pair of mid-weight, full cushion, merino wool trekking socks (worn) (max 2.5 oz): Same benefits as above but these are your extra ones.

Lightweight merino wool sock reserved for sleeping only, 1 pair (max 2.5 oz): Sleep is good. Sleeping in warm socks after a long day on the trail is even better. Just so it's clear, that's 3 pairs of merino wool trekking socks total.

Large but as light as possible Dry Bag, 20-25L or so, to store food (max 3 oz): The dry bag has two benefits. 1) Your food will stay dry during river travel, and 2) we are in bear country and dry bags are less penetrable by food odors.

Suggestions

Lightweight 3 cup bowl with top (smaller ones don't hold enough food for you, and cause you to spill food) (max 1.5 oz): We will be cooking patrol style - boiling water, doling out dry

food into your bowls, and allowing them to rehydrate in the bowls. Consider making an insulated cozy for your bowl out of duct tape and bubble wrap, which helps your food cook after the water is added. Bowl doubles as a drinking mug.

Lightweight but durable spoon or spork for an eating utensil (max 0.5 oz): You want to eat, right?

Lightweight journal and pen: In the moment you think you won't forget but when you're telling your grandkids you may want some written notes to jog the ol' memory. Also a very useful tool in emergencies or changes in itinerary.

Other Gear

Trail Snacks: please bring a "handful" of snacks (12-16 oz per day); peanut butter/almond butter packets, fig bars, nuts, dried fruit, energy bars, trail mix, etc. This will serve as your lunch in addition to being your snacks while in the backcountry. Also bring one or two servings of your favorite hot drinks (tea, soup, cocoa) for the evenings.

Lightweight, packable fishing rod, tackle, and MT license (optional): Fishing in the Bob is out of this world. You definitely want to be able to catch some fish. Plus, they're good eating!

Bicycle, skateboarding, climbing, or whitewater kayaking helmet: This is a must for those doing the packrafting course.

INDIVIDUAL GEAR CHECKLIST

Below is a list of items that you are required to bring. Following that is a detailed look at each gear item.

*** Buy the lightest possible item you can afford for items marked with an asterisk. The lighter they are, the less water they absorb and the faster they dry, and thus, the more comfortable and safer you'll be.**

NO COTTON CLOTHING (except bandana & baseball cap)

Clothing

- lightest possible* synthetic long sleeve hiking shirt (worn)
- lightest possible* woven nylon trekking pants (worn)
- lightest possible* synthetic underwear / spandex shorts (worn)

- mid-weight, full cushion, merino wool trekking socks (worn)
- lightest possible* trail running shoes with an aggressive lug sole (not waterproof) (worn)
- cotton bandana
- baseball cap (worn)

Storm Clothing

- lightest possible* synthetic long underwear top
- lightest possible* waterproof-breathable rain jacket
- lightest possible* waterproof-breathable rain pants
- fleece hat or balaclava (100-200 weight)
- fleece gloves (100-200 weight)

Clothing to be carried

- two more pairs of merino wool socks, one for sleeping in and one as an additional pair for hiking. This is three pairs total.
- lightest possible* synthetic long underwear bottoms
- warm mid-layer jacket (200 weight fleece, high loft synthetic fill or down fill)

Other Items Worn/Carried

- pea-less whistle on a neck lanyard
- lightweight trekking poles (optional)
- sunglasses attached to a retainer so they can hang around your neck
- compass (only need two per crew)

Trail Gear (keep this gear accessible in outside pockets or near the top of your pack)

- One 1.0-1.5 liter collapsible water bottle (Platypus) and one Nalgene 1 L. No hoses or hydration systems. A good less expensive option is to reuse two 1L Smart water bottles.
- toiletries: toothbrush, toothpaste, hand sanitizer, sunscreen, personal meds, toilet paper (repackage these into small containers so you have just enough for the trip. Do not bring a whole roll of toilet paper)
- insect repellent (Naturapel or 30%+ DEET only)
- insect headnet
- first aid supplies: a few assorted band-aids, 1 roll of first aid tape, acetaminophen 500mg (x12), ibuprofen 200mg (x12), benadryl (x6), loperamide (x6), epipen if you have allergies that can lead to anaphylactic shock.
- LED headlamp (the type that take 2-3xAAA's or 2xAA's), with one set of extra batteries
- camera (optional)
- Firestarting kit containing a magnesium striker and waterproof firestarters

Camp Gear and Clothing

- backpack (55-70 liter size, so you can carry bulky group gear if needed)

- durable packliner such as a large drybag. (used to keep gear dry)
- sleeping bag (30°F rating, down or synthetic) Make sure you have a separate dry bag just for your sleeping bag.
- sleeping pad (½, ⅔ or full length pad)
- ground cloth (2.5 feet x 7.0 feet, 2mil painter plastic, mylar emergency blanket, Tyvek, etc.)
- large drybag, to store food. This drybag should be between 25-35 liters and should be a heavier more durable fabric. This bag will be drug over branches and cannot be at risk of being punctured.
- **lightweight 3 cup bowl and lightweight drinking mug** (smaller ones don't hold enough food for you, and cause you to spill food. Use the mug for your favorite drinks at dinner and breakfast) consider making an insulated cozy for your bowl out of duct tape and bubble wrap, which helps your food cook after the water is added
- lightweight but durable spoon or spork for an eating utensil
- lightweight journal and pen

Trail Snacks

- Please bring a “handful” of snacks (12-16 oz per day): peanut butter/almond butter packets, fig bars, nuts, dried fruit, energy bars, etc. This **will be your lunch** on the trek.
- Bring one or two servings of your favorite hot drinks (tea, soup, cocoa) for the evenings.

Prohibited Items

- electronics, including electronic compasses and altimeters, personal gaming devices, music players, e-book readers, cellular phones, and GPS devices. Watches that only tell the time are allowed.
- alcohol, drugs, tobacco, firearms, and other illegal items.

If you have any questions at all about gear, please call Trek Director Stephen Miller (314)-920-8672 and ask for recommendations. Stephen can help recommend less expensive gear that will still perform well for those on a budget. Do not go out and spend a ton of money on new gear without consulting our Trek Directors first. If you're unsure about anything gear wise, please just ask.

Frontcountry Stuff

- Class A Uniform: to include your Class A shirt, olive shorts or pants, olive socks, neckerchief and slide.
- Class B Scout shirt (T-Shirt with a Scout theme), and extra pair of shorts, socks

- Extra house shoes or slippers (clean!) for base camp
- Deodorant, soap, comb/brush, and shampoo
- A small duffel bag or day pack that can hold your “Frontcountry Stuff”
- \$35 to \$50 for incidental spending money (road meals, trading post, etc.)
- **Paper copies of your BSA Medical Form**

Additional Items for MOHAB Packrafting Trek Participants:

- Lightweight, packable fishing rod, tackle, and MT license (optional)
- Bicycle, skateboarding, climbing, or whitewater kayaking helmet

If you have opted for the premium package, all group gear, including shelters, cook kits, water treatment supplies, food, and packrafting gear will be provided.