University of Scouting - Backpacking 101

by Bill Wilhelm

Course Objective

Learn the basics of selecting your personal clothes and equipment to make backpacking fun and increase your enjoyment and comfort in the outdoors.

A Little About Me

- Assistant Scoutmaster – Troop 236
- Associate Advisor – Venturing Crew 236
- Philmont Crew Advisor - July-August, 2004
- ADK Winter Mountaineering School – February, 2005
- Aspiring Adirondack 46'er (26 down, 20 to go)

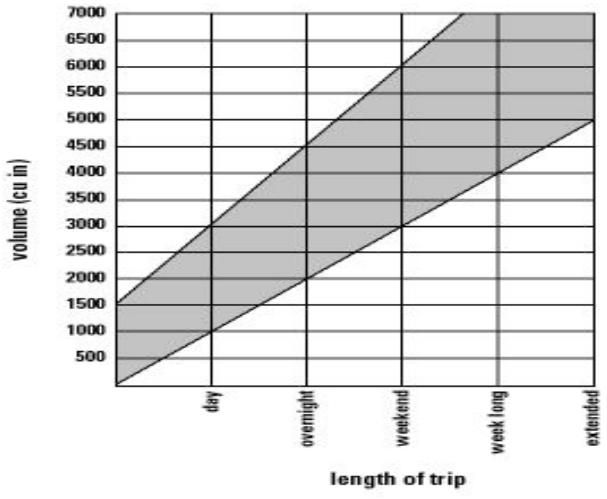
Things to Consider

- Gear
  - Personal Gear
  - Crew Gear
- Clothing
- Packing
- Food and Cooking
- Safety Concerns
  - First Aid
  - Trip Planning and Preparation
  - Navigation

Backpack

- Pack selection – personal choice, what you are willing to spend, and your intended use.
- Fit is most important
  - Buy where fitting assistance is available since individual fit is key.
  - Hip belt must fit snugly and allow the full weight of the pack to ride on the hips.
  - Shoulders straps should be padded and fit the width of your shoulders.
  - Viewed from the side, straps should be level, or slightly upward, to the pack frame. Load lifter straps should come up at a 45° angle.
  - Torso length, waist size.
- Internal vs. External is a matter of personal preference and intended use.
- Must be large enough for your gear and your share of crew gear.

How big should your backpack be?



Philmont recommends: **4500** **c.i. or larger internal frame**

3500-4000 **c.i. or larger external frame**

Backpack (continued)

- Internal Frame
  - Better balance and mobility by riding the load closer to you
  - Lower center of gravity.
  - Better for rough trails, climbing, etc.
- External Frame
  - Can carry heavier loads (but higher c.g.)
  - More flexible - allows gear lashed outside
  - Better ventilation
  - Best for flat, smooth trail
  - Don’t forget the lashing straps (and spares)!

Backpack (other considerations)

- Inspect your pack
  - Keep it clean (rinse, wipe down, dry completely)
  - Check stitching, grommets, welds before and after treks.
  - Have repair parts (clevis pins and o-rings) in your kit.
- Rain cover
  - Should fit over your pack and anything you intend to lash to it.
  - Should be easy to get at and easy to get on.
  - No garbage bags, please.
- Usability
  - Accessories
  - Pockets
  - Ease of access to essentials
  - Packability

Packing Tips

- All items in your pack should be neatly organized and packed in plastic bags, ditty bags or stuff sacks.
  - Keep dry the stuff that needs to be kept dry!
- Organize for accessibility.
- Keep similar items together.
- Be Prepared, but try to bring only what you'll need and use.
  - "An ounce in the morning is a pound at night."

Boots

- Probably your most important piece of gear
- Helps distribute and support the load (I prefer leather for that reason)
- Proper fit is essential
  - Get qualified help when buying and fitting.
  - Walk around in the store, take your time.
  - Toe room, but no sliding forward or side-to-side.
- Consider what you'll be wearing (sock-wise)
- Consider what you'll be carrying
- Should be broken in by walking, with and without load, at least 10 miles (some say more).
- If new boots are needed for Philmont, buy them in the Spring (e.g. March)
- Water proof is best (e.g. Gore-Tex lined)
- No sneakers, please (except as in-camp shoes).

Sleeping

- Synthetic, light-weight bags are best
  - Philmont recommends 20° bags.
- Sleeping bag in waterproof liner
  - Critically important for down bags (Philmont does not recommend down bags)
- The only place you can/should count on being warm and dry is in your bag, in your tent.
- Sleep clothes (worn only in sleeping bag and/or tent)
  - T-shirt and boxers or gym shorts
  - Cotton OK here
- Sleep pad – comfort, moisture barrier, insulation
  - Therm-a-Rest
  - Rolled foam
- Pillow (optional)

Tent

- Another personal preference item with many alternatives.
- Lightweight backpacking tents are best.
  - E.g. Eureka BackCountry
  - Troop Timberlines will do (e.g. split up between 3 or 4 Scouts).
- Share the bulk and the weight.
- Considerations:
  - Weight
  - Ease of setting up (practice!)
  - Rain fly
  - Vestibule
  - Sit-up room

Rain Gear

- Consider this a must.
- Quality is important.
- Waterproof, not water-resistant.
- Two-piece is best
- Gore-Tex, if possible.
- Can augment warmth layers when needed.
- Have easily accessible.
- Ponchos are a poor choice – Philmont Rangers opine that an inexpensive rain suit is better than the most expensive poncho.

Clothing

- "*All the best dressed corpses wear cotton*" – Jim Giglinto (sp?) NYS DEC Ranger
- Stay dry!
  - Wet clothing loses up to 90% of its insulative abilities.
  - Wool and polypro fabrics fair better when wet.
- Several light layers are better than one heavy layer.
  - Be prepared to put them on and off
  - Temperature management is important

Clothing (continued)

- **Socks**
  - Thin, wicking liner socks (polypro or CoolMax)
  - Weather-appropriate hiking socks (wool, SmartWool, other synthetics)
  - 2-3 pair of each
- **Underwear**
  - Boxers or briefs? (or commando!)
  - Whatever you do, avoid cotton!
  - Lightweight polypro long johns can be useful.
- **Shirts**
  - Temperature-appropriate t-shirt(s)
    - TechWick, polypro
  - Long sleeve warmth layer (wool shirt or sweater)
- **Pants**
  - Nylon zip-off hiking pants are excellent choice
  - No jeans, please!
- **Sleep clothes**
- **Camp shoes**

More Clothing

- Hiking Shorts
  - Nylon gym shorts with liner (e.g. Champion)
  - Zip-off top half
  - Dedicated nylon or synthetic hiking shorts
- Bandanas
  - 2-3 per person
  - Many uses (sweatband, handling hot bowls, wiping food dishes, tying on a splint!)
- Hats
  - Wide-brim, baseball cap, etc.
- Gaiters
  - Not essential, but useful.
  - Ankle style is best for hot weather

Hydration

- Drink early, drink often – high adventure, high activity trekkers can use a liter per hour.
- *“Clear and copious”*
- 2-3 wide-mouth Nalgene bottles per person, minimum.
- Hydration sleeves have pros and cons.
- Use only one bottle for drink mixes (e.g. Gatorade, Tang) as these bottles become “smellables”
- Collapsible container is nice for toting water from source.

Personal Miscellaneous Gear

- Trekking poles
- Repair kit
  - Clevis pins and rings for external frames
  - Therm-a-Rest patch kit
  - Duct Tape!
- Personal First Aid
  - Foot care and incidental cuts scrapes, mainly
  - Individuals should each have small personal kit (e.g. a ‘hot spot’ kit).
  - Crew gear should include comprehensive kit

Personal Miscellaneous Gear (continued)

- Small towel
- Pocket knife
- Sunglasses
- Lip balm
- Toothbrush
- Small bar of soap
- Extra plastic and Zip-Loc bags

Luxury Items

- Coffee/maker!
- Crazy Creek chair
- Book?
- Camera (don't leave home without it, but consider how you'll carry and access it)
- No personal stereos, please.
- Cell phones are not much use in the back country.

Crew Gear

- Avoid duplication
  - Share the gear, share the load
  - e.g. A crew does not need eleven tubes of toothpaste or sunscreen.
- Food and Cooking
- Hydration
- Hygiene
- Dining Fly
- Bear and mini-Bear avoidance

Food and Cooking

- Pre-packaged foods (some are quite tasty, actually)
- Make your own! (Get a dehydrator?)
- Backpacker magazine puts out a great cookbook and menu planning guide book set
  - *Backcountry Cooking: From Pack to Plate in 10 Minutes*
  - *More Backcountry Cooking: Moveable Feasts from the Experts*
- Special cook sets (e.g. MSR BlackLite)
- Old BSA stand-by (large aluminum pots)
- Remember the utensils!
- Bakepacker$_{TM}$

Stoves

- You must have a stove - some areas do not allow fires
- White gas (Coleman fuel is best)
  - MSR - WhisperLite, SimmerLite, DragonFly
  - Coleman - Peak One
- Can use Iso-butane fuels in warm weather - best for small crews and small pots/pans.
  - MSR PocketRocket for ultralite.
  - JetBoil
- Check stove operation before you go!
- Spare parts as required.

Hydration

- Water supplies often cannot be trusted.
- Water filters
  - Should be field maintainable
  - Most filters remove bacteria and particulates, but do not purify (e.g. viruses).
- Water purifiers
  - Pump-type filters
  - Polar Pure
  - MSR Miox (small, light, extremely effective)

Hygiene

- Purel or other waterless sanitizer for hands
- All-purpose paper
- Backpacking trowel
- Dishwashing soap – Mountain Suds
  - Use for dishes, clothes, even teeth!
- Small scrubbie pad for washing.
- Sterilize mess kits before eating (Philmont protocol)

Dining Fly

- Set up first.
- Place to get gear out of the weather quickly.
- One per crew is sufficient.

Bears and mini-Bears

- Bear bags
  - Bags, ropes, carabiners
- How many will *you* need?
  - Crew size, days
- Bear canisters
  - Hold approx. six person days of food
  - May soon be required equipment in the ‘Dacks
- No food or food-crusted clothes in tents
- Hang smellables, too

Safety Concerns

- Trip Planning
  - Length of trek
  - Physical effort required (e.g. elevation profile)
  - ‘Escape’ route?
  - Available daylight
  - Turn-around time(s)
  - Tell your itinerary (be sure to check in!)
- Physical Preparation
  - Get in shape
  - Start small, slow
- Gear/Pack Checks
  - Shakedown treks
  - The night before is best
  - Do it!

Safety Concerns (continued)

- Crew Gear distribution and double-check
  - One of the reasons for a night-before pack check
- Buddy System
  - Minimum two people
  - Philmont requires four people for side hikes
- First Aid
  - Have a comprehensive First Aid kit in the crew gear.
  - Philmont requires adult CPR and first aid training
  - Wilderness Medical Associates – Wilderness First Aid training

More Safety Concerns

- Time keeping
- Navigation
  - Map and Compass
  - Know your route
  - GPS is nice, but don't rely on it
    - Map and compass does not require batteries and works even under the tree canopy!
  - Don't rely on the signs, either!
  - Regroup at trail intersections and significant stream or river crossings

Ten Essentials for Hikers

1. Map and Compass (and the ability to use them)
2. Sun and Insect Protection (sunscreen, hat, sunglasses, insect repellant)
3. Potable water (and the ability to 'make' more)
4. Rain Gear and Extra Clothing (a breathable rain suit, warm clothing – wool, polypro suitable for retaining body heat)
5. First Aid Kit (adequate to treat common injuries that might occur on a hike)

Ten Essentials for Hikers (continued)

6. Matches/Fire (for warmth, drying clothes, signaling, or boosting morale)
7. Flashlight
8. Extra Food (for energy and warmth)
9. Pocket Knife (a Swiss Army-type is recommended
10. Watch (so you can stick to your schedule, itinerary and turn-around times)

0. Have told someone your itinerary!

Resources

- EMS - Ithaca, Syracuse (bye-bye Oakdale Mall)
- REI
- Camp-Mor
- www.backpacking.net
- http://www.geocities.com/Yosemite/1157/guidebook.htm
- http://www.mickiesplace.com/fitting.htm
- http://www.gregorypacks.com/faq.html
- Backpacker Magazine
- Google!
- gww@endwell.net