

Hiking: Safety and advanced issues

HuMSAR General Membership Meeting

Monday, July 10, 2017

hiking preparations

- What to wear
- What to pack
- Other preparations



Clothing

- Wear light-colored, **non-cotton** long pants and long-sleeved tops, even in summer. Light colors make it easier to see whether ticks are on you.
- Dress appropriately for the season and wear appropriate hiking shoes or boots. Layered clothing is best to meet changing weather conditions. If cool or wet conditions can be expected it is recommended that you avoid cotton clothing, which insulates poorly when wet and dries very slowly.
- Wear a hat and sunglasses (even in winter), or take them with you.
- Wear a watch so you'll be aware of sundown approaching, even if the sky becomes cloudy.
- Avoid wearing scents in any form; they can attract stinging and biting insects.

Back pack prep

- Carry a trail map, compass and a topographic map of the area and know how to use both. A GPS is useful only if you know how to operate it.
- Your pack should contain extra warm clothing, high energy food, pocket knife, whistle, sunscreen.
- A way to start a fire, including matches in a waterproof container and cotton balls soaked in petroleum jelly. These will light even when wet.
- Raingear or a heavy duty, brightly colored trash bag with a hole cut out for your face. A simple trash bag enclosure will keep you dry and warmer.
- Water and water purification tablets.
- Flashlight and extra batteries.
- Take an epi-pen if you're allergic to bee stings.
- At the trailhead, there is usually an emergency number for that particular area. Take a picture of it with your cellphone in case you need it, but don't count on cell reception in all areas.

Other preparations...

- Prepare yourself physically. If your planned recreation calls for considerable physical exertion, get in shape beforehand. Do not attempt a trip that is beyond your physical capabilities.
- Leave word of your destination and schedule. In order to locate you in an emergency or send assistance should you need it, leave word at home or with a friend as to where you are going and when you intend to return.
- Arrange to go with a group or at least one other person.
- Know how to identify common poisonous plants (see Rich!) like poison ivy and hogweed so you can avoid them.
- Know the rules and guidelines for appropriate behavior for the area you are visiting.
- If hiking in the Adirondacks, consult DEC's [Adirondack Trail Information webpages](#) which are updated every week with important information on trail conditions and seasonal notices, and check the National Weather Service website to get the forecast for the area where you will be hiking.

ON the hike!

- Stay with your party; don't split up and take different trails.
- Drink water regularly, and rest and snack occasionally.
- Resist the temptation to hike "just a little farther;" it could delay your return and put you at risk of losing daylight.
- Do not drink water from ponds or streams unless you have treated it first by boiling, filtering or using purification tablets.
- Avoid wading or swimming in unfamiliar waters, where there could be sudden, strong currents or steep drop offs.
- Sign in at any Department of Environmental Conservation trail register you may pass. This will assist DEC Rangers in finding you should we need to search for you. Don't forget to sign out when you leave.
- Don't build fires when the risk of forest fires is high (unless it is an emergency), and don't leave fires unattended.
- Don't litter; if you carry it in, carry it out.

If you get lost or injured...

- If you become lost, keep calm, stay dry, keep warm and **stay put**.
- If it appears that you will need to spend the night in the woods, build a campfire to provide heat, light and comfort. A campfire will be invaluable in locating you if you have been reported missing. Aircraft may be used in searching when weather permits and smoky campfires may be spotted from the air
- If the weather is particularly cold or bad and you must spend the night in the woods, also build a small shelter using dead branches, hemlock boughs and leaves. The shelter will serve as a "cocoon" and should be just big enough for you to lie in comfortably. Set up camp before darkness falls.



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- If you feel you can try and find your way out of the woods, remember that following streams downhill will nearly always lead you back to signs of habitation.
- Any person knowing you are overdue should contact the New York State Forest Ranger in the area of your trip.
- In case of accident, at least one person should remain with the injured person. Know and use basic first aid techniques. Others in the group should carefully note the location and contact the local New York State Forest Ranger (Did you remember to take a picture of the emergency number at the trailhead?). You may need to hike uphill to get a cell signal.
- If you are a member of this team and get lost and cannot regain your bearings, you need to work on your navigational skills more..... 😞

Weather Considerations

- Please *ALWAYS* check weather before hiking and even before a search. Don't rely on others to keep track of the forecast or changing conditions.
- During the summer, if it is hot and humid, conditions exist for thunderstorms. Prior to the storm:
 - You may hear thunder in the distance (which means the storm is close enough for lightning to strike where you are).
 - You may feel a sudden gust of wind (known as the gust front). Rain, potentially heavy, will fall soon after.
 - You may or may not, depending on your elevation and vegetation canopy, see dark clouds approaching.
- There is little to be done if you're in the woods when a storm hits. Try to stay in an area with low foliage; avoid the tallest of trees and wide open areas. Put on raingear and try to stay as dry as possible.

Follow the rules...

- When in the woods, use only blowdown and fallen branches for firewood (green wood doesn't burn well anyway).
- Camping is prohibited within 150 feet of any road, trail, spring, stream, pond or other body of water except at areas designated by a "camp here" disk.
- Groups of ten or more persons OR stays of more than three days in one place require a permit from the New York State Forest Ranger responsible for the area.
- Sponsoring, conducting or participating in an organized hike, camping trip or other event with more than 20 people on state lands without a permit from DEC is prohibited.
- Lean-tos are available in many areas on a first come first served basis. Lean-tos cannot be used exclusively and must be shared with other campers.

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- Use pit privies provided near popular camping areas and trailheads. If none are available, dispose of human waste by digging a hole 6"-8" deep at least 150 feet from water or campsites. Cover with leaves and soil.
- Do not use soap to wash yourself, clothing or dishes within 150 ft of water.
- Drinking and cooking water should be boiled for 5 minutes, treated with purifying tablets or filtered through filtration device to prevent instances of giardia infection.
- Fires should be built in existing fire pits or fireplaces if provided. Use only dead and down wood for fires. Cutting standing trees is prohibited. Extinguish all fires with water and stir ashes until they are cold to the touch. Do not build fires in areas marked by a "No Fires" disk. Camp stoves are safer, more efficient and cleaner.
- Carry out what you carry in. Practice "leave no trace" camping and hiking.
- Keep your pet under control. Restrain it on a leash when others approach. Collect and bury droppings away from water, trails and camp sites. Keep your pet away from drinking water sources.

Continued...

- Observe and enjoy wildlife and plants but leave them undisturbed.
- Removing plants, rocks, fossils or artifacts from state land without a permit is illegal.
- The storage of personal property on state land is prohibited.
- Carry an approved personal flotation device (PFD) for each person aboard all watercraft.
- Except in an emergency or between December 15th and April 30th, camping is prohibited above an elevation of 4,000 feet in the Adirondacks.
- Except in an emergency or between December 21st and March 21st, camping is prohibited above an elevation of 3,500 feet in the Catskills.
- At all times, only emergency fires are permitted above 4,000 feet in the Adirondacks and 3,500 feet in the Catskills.

Start at
1:34



insects

There are many different insect repellents on the market. Some offer more protection and are more effective than others. This is just a short list.

- **DEET and picaridin (a DEET alternative) can last 4 to 10+ hours;** see product labels for time estimates. Usually applied directly to the skin.
- If you prefer to keep it natural, you'll need to reapply often. Repellents using essential plant oils are believed to be effective for 30 minutes to 2+ hours.
- **Apply permethrin to clothing and gear only!** This stuff is very effective but handling of it requires great care. There are studies out that show it can be deadly to cats, so keeping treated clothing in an area where cats don't go is essential. Wearing disposable gloves when applying it is recommended as it will remain on your hands after it dries and doesn't wash off. According to the label, it can cause irritation and swelling on affected areas on the skin. Once the clothing has fully dried, it has no effect on human skin.



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Advanced stuff

So now that you are in SAR, having a better idea of your pack and situations on the trail is important.

The pack for sar

The “ten essentials” for hiking can also be viewed as “ten essential categories” for what you carry in your pack. I found these categories on a website. Here’s the author’s ideas:

1. Navigation

2. Insulation

3. Illumination

4. Nutrition

5. Hydration

6. Sun Protection

7. Fire

8. First Aid

9. Emergency Shelter

10. Tools and Repair

Navigation

Here are items that you'd use to navigate. NEVER rely totally on just one. GPS and compass can be used together very effectively. Always have a map of the area you are hiking/searching in.

- GPS (Garmin e-Trex or 64c)
- Compass
- Topo map
- Trail map



insulation



It's a beautiful day with temperatures in the 80s! Why would I need additional layers? A thunderstorm rolls through later in the day and gets you wet, then drops the temperature 20°F. It's also close to sunset.

- Raingear
- Hat (helps regulate heat loss and shields the head from sun/rain).
- Fleece and/or thermal shirt
- Extra socks, shirt (no cotton)
- Gloves (again, regulates heat loss and protects hands in underbrush)
- Safety glasses

illumination

This is important even if you don't plan to be out near or after dark. Sometimes that decision is made for you after you start the hike.

- Flashlight
- Headlamp (for those times you need both hands and a light to see).
- Extra batteries (keep in waterproof container)
- Glow sticks



nutrition

The obvious reason is for you to keep energy during the hike, but you may get into a situation where you'll need more than you might think. If you come upon a lost hiker, they may not have had anything to eat in a while, so I also pack extra just in case. Having a meal bag isn't a bad idea, either.

- Power bars
- Energy bars
- One or two meal bags for hikers (you'll need a way to boil water to use them, though).
- Candy bars
- Hard candies
- Trail mix
- Coffee/tea



hydration

If I'm carrying extra weight, this is where it is coming from. Hydration is so important. I find that a camel pack is best for me because I can sip water as I walk along. If I have to stop to get out a water bottle, I tend to wait longer to drink.

- Camel pack
- Insolated water bottle (cold in summer and unfrozen in winter)
- Extra water bottles in side pouches and inside backpack.
- Purification tablets
- Water filter
- Container in which to boil water



fire



Having multiple ways to start a fire is essential. You'll need to be able to start a fire under various conditions.

- Waterproof matches
- Lighter (one that you can see how much fluid is in it).
- Flint and scrapper
- Cotton balls with Vaseline
- Lint balls
- You need to practice starting fires with very small tinder then adding larger material.
- Carrying a hikng stove is awesome, but adds weight

Sun protection and first aid

I put these categories together as they are fairly straight forward

- Make sure to cover as much skin as possible not only for insects, but sun protection as well. That includes a hat of some sort. For neck and face make sure to use SPF30 sunscreen or higher (blocks 97-98% of rays).
- Carry a first aid kit made for hikers (most will have what you need).
- New skin
- Moleskin for blisters
- Aspirin or ibuprofen
- Taking a wilderness first aid class is always a good idea



Emergency shelter

This falls under a broad category as shelters can be very simple to very complex. I'll go from simple to complex. Use simple for a short time shelter; more complex if the shelter will be used for a longer time period.

- Large heavy duty garbage bag (cut hole for face).
- 4' x 8' tarp for small, simple lean-to
- Shelter around fallen tree with evergreen branches for sides/floor
- Dug out shelter around a natural feature (large bolder/tree stump)
- Lean-to built with trees and branches.



Tools and repair

Tools tend to be heavy, therefore plan carefully when considering what to bring. Multi-tools avoid excess weight, but lose effectiveness.

- Hand shovel
- Hatchet/Hammer
- Saw
- Knife
- Spork (or other eating utensils)
- Metal cup or container for heating/boiling liquid
- Rope/twine
- Zip ties
- Waterproof bags
- Machete
- Tarp

- Duct Tape
- Multi-tool knife



Always be prepared

There have been a handful of times that I've met up with unprepared hikers. When that happens, you may be their last hope for an uncomplicated conclusion to their day or an emergency situation on their part.

Assess the situation. Remember that not everyone is going to think they are in trouble. Some may not want to admit it. If they absolutely refuse your assistance, make a note to yourself where and what time you encountered them. A quick call to the Ranger in that area to let them know what you saw may save them a lot of work later that day or the next.

If you find yourself in trouble, please use the skills that you would use if someone else were in trouble. Do not panic. Assess your situation. Use your training.