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# SELF RELIANCE



## *illustrated*

**The Flip Flop Winch** p.67

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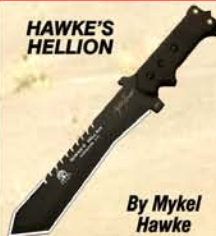
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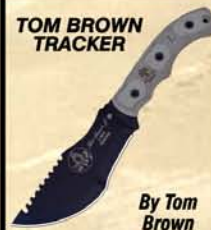
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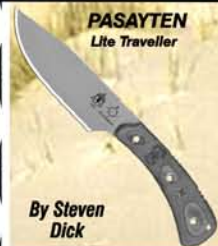


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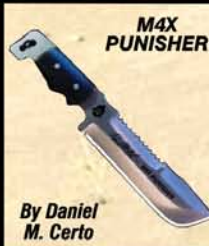
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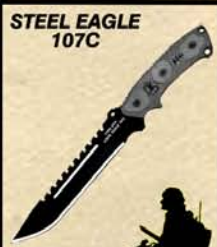
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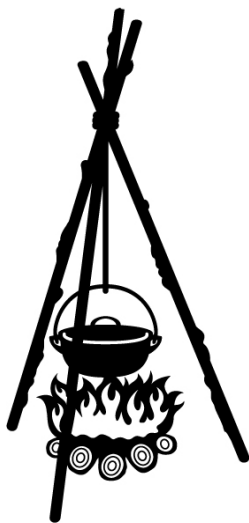
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**Cover Image:** Photograph taken by Laura Henninger.

# From the Editors...

**H**i everyone. I hope you are all doing well. Wow, it sure has been a hot one here in Ohio! We have all been very busy here at the knife shop and that's a good thing in an uncertain world. One of the things I have noticed as I go to the gun shows across the United States is the increase in the amount of people that are talking about becoming more self-reliant. Everything from guns and ammo to knives and food stores and just gaining more knowledge on the skills needed to survive without aid from others. So I guess we are not alone with our thoughts and I feel good about the chance to raise the awareness in others. As for me, the fall will be my time to do more things. I have a couple of trips planned: a lightweight backpack trip up a mountain in Vermont and an Iowa whitetail hunt. Until then I will be working on self-reliance here at the house and honing my woods skills. I would like to thank all of you that have bought our magazine and all of you that are now subscribers of this magazine. To all of you that have a business to run in this day in time when extra money for advertisements can be hard to find I thank you and will pray for you and your business.

May GOD bless all of you,  
Dan Coppins.



## Mission Statement

Self Reliance Illustrated, a collaboration between two grassroots companies (Blind Horse Knives LLC and The Pathfinder School LLC), will present a new and innovative approach to self-reliance, survival, and preparedness. Within these pages you will find detailed information on subjects that relate directly to your ability to survive. The collaboration of The Pathfinder School LLC and Blind Horse Knives LLC is one that is heavily focused on the development of the best tool options for any wilderness situation, as well as the dissemination of information and cross-cultural learning that will truly help us to maintain and pass on the tribal knowledge. What the Pathfinder System symbolizes is learning from everyone around you and valuing everyone's opinion. To that end you will see many articles by people you may have never seen or heard of that will pass on ideas that we believe are worth learning, so that all have the ability to teach and learn from one another.

We will be posting feedback in each issue from our subscribers, both good and bad, so that we may constantly improve on this magazine. In the end, this is not our magazine but your magazine and we want it to be worth your valuable time, energy and money.

Within this magazine, like any other, you will see advertisements from companies selling their wares. However, it is our decision that not just any company will be allowed to advertise with us just because they want to pay for advertising. All advertisers will have to be approved by our board before placing ads, and their goods will have to be something we consider worthwhile for purchase by our valued subscribers.

Lastly, we will not down grade any individual, business, or company within these pages. You will only see reviews for equipment that we trust and that you can trust your survivability to. It is our opinion that all publications are learning tools and that we should support those entities wishing to provide quality information on subjects of interest. It is our goal and mission to become the best source of learning and teaching possible, understanding that other publications dealing with the same subject matter are out there and are worthy of your attention as well.

Thank you,  
Dave Canterbury  
James Canterbury  
Dan Coppins  
L.T. Wright.

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# Going Primitive

By Ken Seal III



A simple tripod with a clay pot on the top filled with sand, and charcoal will filter a great deal of contaminants from the water.

**A**s you have perused through the last few issues of SRI, I am sure you have seen many informative and useful articles aimed at water purification. And with good reason! Water is at the top of the list of must have items in a self-reliance situation. If you are like me, you have a couple of different types of water filters, many vessels to carry water, and an arsenal of fire methods aimed at boiling any water in question into oblivion so that it will be safe to drink. But c'mon ... this is SELF RELIANCE ILLUSTRATED!!! Let's get primitive on our water for a change!

If you go back in time to a more laid back era, water wasn't looked down on as it is now. People would drink from rivers and streams, dig

wells and draw water from them, and never think twice about bacteria. It wasn't until cholera was discovered in water that any type of filtration was even thought of. That same filter system is still in use today by many utility companies and just about every pool in America. I am of course talking about sand filters. Now keep in mind this will only FILTER the water. With the water quality today it is imperative that we BOIL just about any fresh water

Ken Seal was born in Sumter, South Carolina and has lived in Florence, South Carolina all of his forty-two years. He served in the US Army with the 72nd FA Brigade in Germany, is an avid outdoorsman, a leader in the Pathfinder Youth Organization, and an all around knife fanatic who also enjoys making knives from time to time.





**Water dripping away. These setups were used at Missions by Nuns 200 years ago.**



**A man made thermos?**

supply we come across in the woods. While sand will filter out some of the larger bacteria and turbidity, it will not remove cysts such as giardia and cryptosporidium. Having had a bout of giardiasis, I can assure you boiling water is on my list of “must do’s” when I am out and about.

So how do you filter your water? You can use one of the newest and greatest filters on the market. They come in many sizes and some are even made for a base camp where hundreds of gallons of water will be needed. But what if it breaks or you are on the move? Go primitive and make your own



**Sand was used alone in the early versions, but with the new bacteria, and cysts that are around today...a layer of charcoal added will help remove the nasty's.**

filter. The earliest example of a sand filter I could find dated back just over 200 years ago and was nothing more than a funnel made of clay and then set in a stand. They would take a piece of muslin cloth and lay it in the funnel, fill it with sand, and set a bucket under it to catch the water. Water would be poured in at night and left to slowly drip through. In the morning the water coming out would be as clear as crystal and ready to drink. You can make something very similar to this by using a large terra cotta pot, making a stand from small saplings or bamboo, and setting a catch pan under it. This can be set up at your camp and used over and over again for as long as needed and then taken down and moved to another location in a hurry. Just dump the sand and pack the pots away. While this is a bit bulkier than hanging some bandanas from a tripod and filling them with layers of charcoal, grass, and sand, it is very effective on a large scale. You can even layer the grass, charcoal and sand in the pot if you like, but if you have a means to boil it is not necessary.

Another method that was used was making a filter from bamboo. A large section of bamboo would be split in half, a small series of holes would be punched in the membranes in each section, then a piece of cloth would be placed in the bottom and sand poured in with it. The two sections above the sand would have charcoal and grass or small stones placed in them. Then the sections would be put back

*(Continued on page 86)*





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**Q: What is the easiest way to make Char Cloth? – Jeff, CO**

Char cloth is a great homemade tinder that can be easily lit with a spark. You make char cloth by chemically decomposing a pure cotton cloth by heating it. The process is called pyrolysis.

What you need:

- 15 minutes
- A small tin with fitted lid (think Altoids)
- Several pieces of 100% cotton material to fit in the tin (cut up an old t-shirt, jeans)
- A small nail or sharp stick
- A heat source (backpacking stove, campfire etc.)
- Air tight storage container for the finished product.

How to make it:

- Using the nail or stick place a small hole in the center of the lid. This will allow the smoke to escape during the charring process.
- Place the pieces of material into the tin and seal it closed with lid.
- Place the tin onto the heat source and watch smoke stream from the hole
- After the smoke has completely stopped (about 10 minutes), remove the tin and let it cool.
- Remove your char cloth and store it in an airtight container until needed

Do you have a question for Payge? Send it to [payge@turnthepayge.com](mailto:payge@turnthepayge.com)

Payge McMahon is an adventure athlete, world traveler and journalist. She is the 'country girl-next-door' from Pennsylvania with five older brothers and only a few generations removed from being Amish! Like her FB fan page: [www.facebook.com/paygemcmahon](http://www.facebook.com/paygemcmahon) and follow her adventures at: [www.turnthepayge.com](http://www.turnthepayge.com)

Note: The finished char cloth should be black. If it is not, let it cook some more.

**Q: I will be spending a lot of time on a mountain this winter snow shoeing, snowmobiling and skiing. I'm a little paranoid about avalanches. What signs should I look for to stay safe? – John, CA**

There are several variables, some can change hourly, which affect the likelihood of an avalanche: weather, temperature, slope steepness, slope orientation (whether the slope is facing north or south), wind direction, terrain, vegetation, and general snowpack conditions.

Added weight to an existing snowpack, especially one which does not bond with the pre-existing snow, can cause it to fracture and slide. This can come from heavy snow fall or a person walking on an unstable area. In 90% of the avalanche accidents, the avalanche is triggered by the victim.

A dramatic increase in temperature will cause melting that can weaken upper layers of a snowpack and increase risk of a slide.

Observe your surroundings and what conditions put you at risk:

- 24 hours after a heavy snowfall (6 inches or more) and remember wind can help drop 2 feet of snow in just hours.
- Leeward side of a mountain – faces away from the wind and it is dangerous because wind-deposited snow adds depth and may create unstable slabs of snow. (*Northern Hemisphere, storms generally move west to east. The leeward slopes are likely to be the northeast, east, and*



southeast facing slopes)

- Most avalanches occur on 30-45 degree slopes
- Depth Hoar Snow - course, grainy form of snow crystal bonds poorly and creates a very weak layer in the snowpack. Most often occur very early in the season. Slopes with Depth Hoar snow can avalanche with a slope of only 20 degrees.
- 'Terrain Traps' include bowls and gullies
- NOTE: It is a myth that loud noises trigger avalanches

The most common dry slap avalanche can reach speeds of 80 mph. Unless you are on a snowmobile, your best bet is to get off the slap by moving to the side. Try swimming in the flow of snow to keep yourself from being buried. If possible grab a tree early on before the slab picks up momentum.

There are avalanche beacons and inflatable life packs you can wear as an emergency precaution.

**Q: What exactly is bannock and how do I make it? – Beth, WI**



**Mitch's Bannock**

Bannock is a primitive flat-bread. I tried some of Pathfinder's School Instructor Dave "Mitch" Mitchell's bannock at the last school Gathering and it was awesome! So I asked him to help me answer the question and offer up his secret recipe.

***Dave "Mitch" Mitchell's Famous Bannock Recipe***

- 2 parts Whole Oats
- 1 part Buttermilk Pancake Mix
- 1/3 part Sugar
- 1/2 part Flax Seeds
- Dash of Salt

Prep: I grind up the Oats and Flax Seeds in my coffee grinder or mortar and pestle. The grinder is the fastest but the mortar and pestle is quiet, relaxing, and primitive ; )

Now for the added edibles, the best is Dwarf Pine Cones, and Male Pine Cones are good too but a list of wild edibles I've used:

- Dwarf Pine Cones
- Male Pine Cones
- Blueberries
- Raspberries
- Blackberries
- Dewberries
- Apples
- Japanese Knotweed
- Chestnuts

I cook the dough on a plank propped up in front of my fire. As the edges brown I rotate the bannock and tilt it much steeper to firm up and brown the middle. I prefer the middle soft and gooey with a crispy outside.

For a video on cooking bannock check out Mitch's Primitive Cooking series episode:

[http://www.youtube.com/watch?v=ih\\_9Htw-Qe4&feature=channel\\_video\\_title](http://www.youtube.com/watch?v=ih_9Htw-Qe4&feature=channel_video_title)







# Numyth Vulcan Fire Piston

By Andy Blanchard

*In this Woods Monkey feature we will be taking a look at the Numyth Vulcan fire piston. Functional woodland ally, entertaining conversation piece, or fire nemesis. Let us take a look and learn together.*

Some of the gear we tote along with us on our outdoor forays is pure function, some pure entertainment, and some things are a happy mix of the two. For me the fire piston usually fell into the entertainment category. Follow along with me as I have a change of heart about this historically valid fire making tool. The Vulcan fire piston is the brain child of the proprietor of Goinggear.com, Marshall Hoots. I got to meet Marshall this year at the Blade show and all I can say is that it seemed like I was immediately friends with him. Like so many of our outdoor specific business and vendor friends, he was like minded to the Monkey troop. He and his staff were friendly and knowledgeable about the products they offered and the outdoors in general. Marshall started a new company called Numyth and he intends to use it to bring some exciting new woodland tools

to market. The first of which is today's piece of fire making woodland gadgetry – the Vulcan fire piston.

## How a Fire Piston Works

I have always had a fair hand with fire making. Even in my rookie days in the Boy Scouts I was typically one of those boys that could coax a flame from whatever was on hand. The first time I pestered a re-enactor into showing me how to use a flint and steel set at a local rendezvous I was about twelve. I was fairly successful and that kindled an interest in the primitive methods of fire making that has stayed with me for years. If you're like me you may have heard of a fire piston but maybe you never got a good lesson in the working mechanics or the theory behind it. Knowing these things can turn a frustrating series of failed attempts into a more pleasing session of honing skills. Let's begin with what components any fire piston should have before we go into the specifics of the Vulcan fire piston. A fire piston is typically made from sturdy materials like bone, hardwoods, horn, metallics, and more recently high density acrylics. The piston usually has an oversized handle or head to ease the impact when the piston is driven into the bore. This piston has a fit section that allows a good seal in the bore of the companion piece of the piston. Documentation puts this tool on the scene as early as the seventeenth century but it's widely believed that these tools were used in Southeast Asia and the Pacific islands much



What comes in the kit, minus the baggie of charcloth.

Andy Blanchard is an avid outdoorsmen who resides in Ohio. The outdoors have been a part of his life since he was young and got his first taste of self-reliance thinking from his time in the boy scouts. Since that time he has sought to expand his experiences and abilities in the outdoors. He enjoys reading, hiking, backpacking, hunting, camping of any kind, and is genuinely more at home in the woods with his dog Timber as nearly anywhere. Andy is a proud Christian and his professional life is based in the metals industry. His hobbies include photography, knife making, and shooting sports. He is also a contributor for woodsmonkey.com and Ohio Valley Outdoors magazine where he chairs the prostaff.







**End of the piston, this is where the magic happens.**

earlier than that. Most often there is a notch in the face of the piston to accept tinder. When the two pieces of the piston are compressed or driven together the piston compresses the gas in the bore to extreme pressures. Suffice to say that a gas, when compressed, takes on heat. This is what occurs in the operation of a diesel engine. In a diesel engine there are no spark plugs. The pressure in the cylinder is simply high enough so that when it compresses the diesel fuel the fuel and air in the cylinder take on the heat from the surrounding area and boom: explosion, or combustion, without a



**Speed is your ally, make a full even stroke as fast as good control will let you.**



**Giving a fresh ember a little air before moving it.**

spark. This is exactly the way in which a fire piston is able to ignite a small ember in the tinder notch.

### **The Numyth Vulcan**

Now that we know the way it works let's look at the specific design innovations Marshall has brought forth with the Vulcan fire piston. First, he has chosen to use aircraft grade aluminum. Light weight and corrosion resistant this is a great application for this material. The Vulcan fire piston can be broken down into four main pieces. Assembled and closed the unit is 4 7/8 inches in length. The handle, or plunger top, has a removable cap with an O-ring that seals a chamber suitable for carrying tinder. The handle tapers down below this section to fit the bore of the accompanying piece. At the distal end of the piston shaft we find a double O-ring seal to get maximum compression. The tinder notch is a crescent that actually retains the tinder quite well. The piston body is also aircraft grade aluminum and has a removable tip sealed by square cut threads and an O-ring seal. The tip has a hole in it for a lanyard. Interestingly this removable end also allows you to carry the fire piston fully compressed or inverted without concern of it falling out. Most fire pistons don't have a removable end so you can't fully seat them. Since you can release the compression or vacuum in the bore by means of this removable end it opens up many options. This removable end is one of the greatest innovations to me, I'll explain a little more about that soon.

### **Time to Make Some Life Giving Fire**

I can't say my trials with the fire piston were all pleasant. I've played with others before this one and had mixed responses. So much so that a fire



piston has never been a part of my kit, until now. I never had anyone practiced with one showing me how to do it, or the tips and tricks, so in addition to talking about the Vulcan specifically, I also want to give you some pointers that might put the fire piston in your pocket or pack instead of in the drawer. Let's start with the basics here. We are essentially trying to start a fire, and what does fire need? Oxygen, fuel, and heat. We described how we are going to generate heat. The fuel will be provided by charcloth we put into the tinder notch. You can also use natural tinder like tinder fungus. Now, a word on the oxygen component. This is really obvious once I figured it out but I admit it took me longer than it should have to decipher. Once you plunge the piston you have compressed the gases in the bore and spent them. Repeated tries may not contain enough oxygen to ignite the tinder even if your technique is perfect. The great part about the Vulcan fire piston is the removable end. You have but to take it off and swing the piston around in the air a little to recharge it with oxygen from our atmosphere. This also leaves the bore open at both ends so you can run a rag or pipe cleaner through it should it get gummed up or wet. I feel that this one fairly simple thing was my key to success with a fire piston. Purging the piston bore took my success rate up enough to justify it in my kit as a viable means of ignition.

### Using the Vulcan

I will give you the blow by blow as it were here, but I do recommend taking a trip to Youtube. Marshall has a great little video up that goes over the Vulcan fire piston tip to tail and shows a great technique. The thing to pay attention to is the move he does immediately after he finishes the



Some good tools to have as well: charcloth, a tin for making and keeping charcloth, and jute twine all fuzzed out for a birdnest.



The kit as it comes.

compression. He snatches the base of the fire piston the second he has struck, and continues to raise the bore side piece up and off the tinder. The reason this is important takes us back to oxygen. The compression of the bore gases is what generates the heat to a degree high enough to achieve combustion of your tinder. But once that combustion is achieved it begins to deplete the oxygen in the relatively small bore very rapidly. That is why speed is needed here. A properly loaded fire piston from compression to retrieval or separation of the bore should be somewhere in the neighborhood of one second or less. That seems undoable at first but the mechanics are simple and you can get good at it really fast. It just takes practice.

Start off with finding the area in which to try



Unpacking the kit.





**The fire piston ready for some tinder.**

your fire piston. You want a solid surface to strike on but not a rock or really hard wood that might damage it. A log or a hard packed section of ground will likely be fine, you may even get away with the palm of your hand but repeated attempts can bruise. Next, load a small piece of charcloth into the tinder notch. This should not be any wider than the tinder notch so as not to interfere with the seal. Check your end cap and O-rings, apply a conservative wipe of grease if they're dry. Place the piston into the bore just enough to engage both O-rings. Placing the larger end down, hold the fire piston in your hand and take a practice swing. Speed is required but not as much force as you'd think, you need to achieve full compression and get it open quick. Swing into the striking surface fluidly without hesitation. You may feel a rebound upon full compression being achieved, possibly an audible "whoof" or a puff of smoke. The moment you hit the striking surface, swing in with your other hand and snatch the large end or the piston, pulling them apart. If you don't have an ember check your tinder, O-rings, purge the bore for oxygen, and try it again. Once you have an ember you can tip it into another larger piece of charcloth or a tinder bundle you have prepped ahead of time. Blow it to life and sit back and enjoy the connection you made to a technology that is possibly older than 400 years but, thanks to the innovations of Marshall Hoots, is still relevant for today's modern woodsman. I have learned a great deal in this review and I hope the experience is similar for you.

The Nummyth Vulcan Fire Piston retails for \$34.99 and can be found at [Goinggear.com](http://Goinggear.com).



**Above: Storage in the handle and the removable bore end cap.**

**Below: Charcloth packed in the end cap.**



**Left: Properly loaded tinder notch, note the clear radius. Right: Freshly produced ember.**





# *What is in my Backpack?*

## *14 Days / 3 Seasons / 200+ Miles*

By Payge McMahon



The Author at Thousand Island Lake on the John Muir Trail in California.

I love to backpack, climb mountains and sleep under the stars. But let us be clear, I dislike packing immensely! There are so many variables to consider: temperature, climate, activities, length, water & food availability, number of people, and potential dangers. Packing is also subject to one's personal preferences and comfort level.

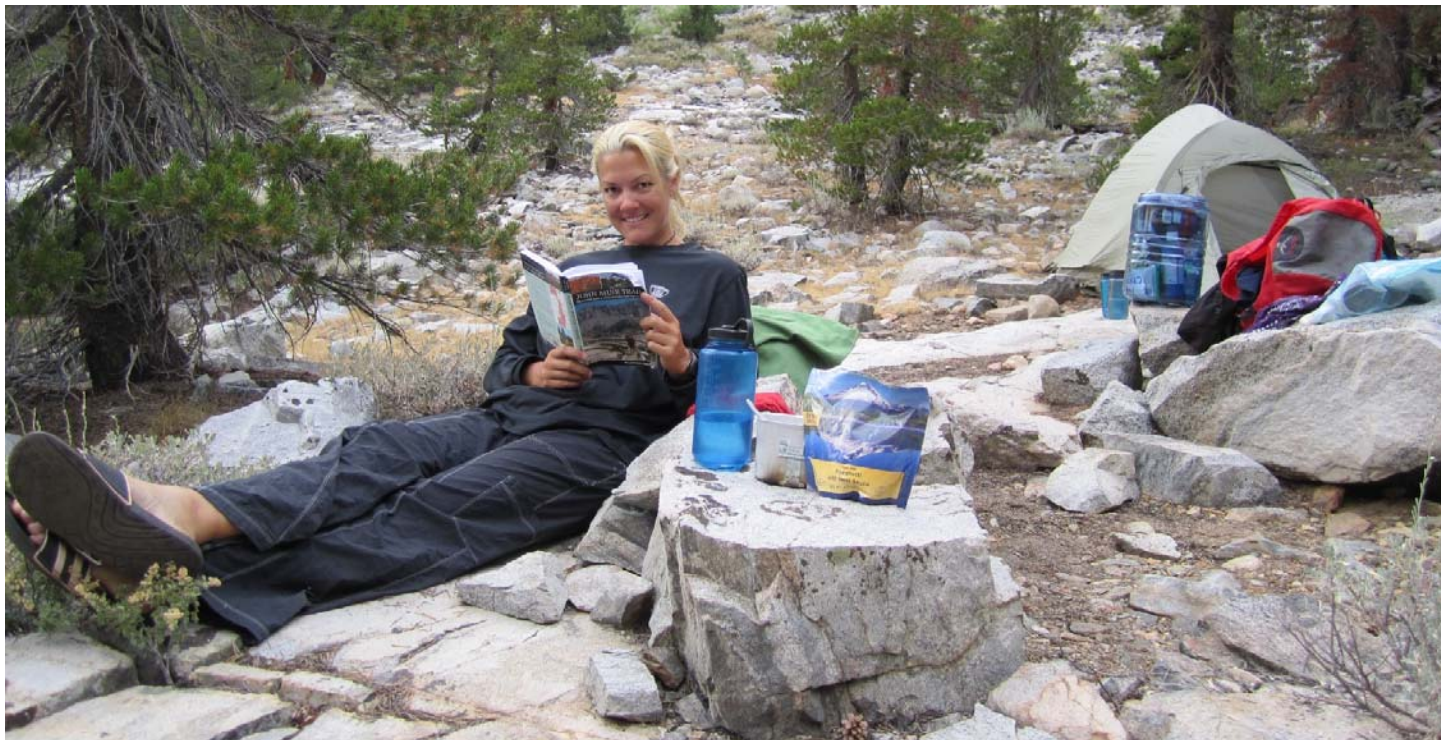
I'm a firm believer if you want it, bring it, as long as you carry it. Women, all things are equal in nature so don't expect a guy you are backpacking with to carry some of your things. Yes, I love chivalry, but don't be a wimp. Be self reliant!

I have developed a spreadsheet system categorizing items and weights to help analyze my

packing and find ways to pare down. The example packing list is from a 14 day adventure I did in CA, hiking in 3-season weather, the John Muir Trail (221 miles). It is part of the PCT (Pacific Crest Trail) and one of the United States' higher elevation trails with limited resupply options. Thankfully, the three resupply places along the way have so much extra food people ship and don't pick up that the owners

Payge McMahon is an adventure athlete, world traveler and journalist. She is the 'country girl-next-door' from Pennsylvania with five older brothers and only a few generations removed from being Amish! Like her FB fan page: [www.facebook.com/paygemcmahon](http://www.facebook.com/paygemcmahon) and follow her adventures at: [www.turnthepayge.com](http://www.turnthepayge.com)





**Camping along the John Muir Trail.**

just put it into big ‘hiker barrels’ and you can take what you want for free. This helped a lot as carrying 14 days of food can be challenging when burning up to 5,000 calories a day (great way to lose weight!).

In looking at backpacking from the ‘female’ point of view, I want to highlight a few areas from the list.

### **Shelter**

Informal surveys suggest that women prefer enclosed shelters versus open ones. I can’t speak for all female backpackers or outdoor enthusiasts, but when I am in the wilderness, I do prefer to be in an enclosed tent or bivy versus a tarp.

### **Food**

Many ultra-light backpackers will subsist on granola, Snickers and protein/energy bars only. I love all of those things and bring them, but also want and crave more. Peanut butter and jelly is my thing. I will carry a heavy jar of ‘Goobers’ (mix of PB&J) because it is worth it to me.

### **Cleanliness**

I also like to wash-up at the end of the day. I’m not a fan of ‘backpacker funk.’ I do my best to be near a water source and bring biodegradable soap (though use it away from the water source using my liter bottle to transport), toothpaste, tooth-brush and yes deodorant. Some may find these items objective,

but I don’t. Hygiene is important, especially with all the little cuts & blisters you will inevitably incur.

### **First Aid**

I would rather have it and not need it, than need it and not have it. So yes, I bring a small pharmacy. Note there are 3 kinds of antibiotics as each one is geared towards a specific area. Women, I would recommend getting a prescription for Diflucan (yeast infections) and bringing a few tampons, even if you are not expecting that time of the month. You just never know! I also usually bring 1 or 2 condoms. The last thing on my mind is having sex after hiking 18 miles over high passes. Condoms can be filled with water if something happens to one of your litter bottles. Also, if you bandage up a wound on your hand or foot and need to waterproof the dressings, most condoms will fit over these areas.

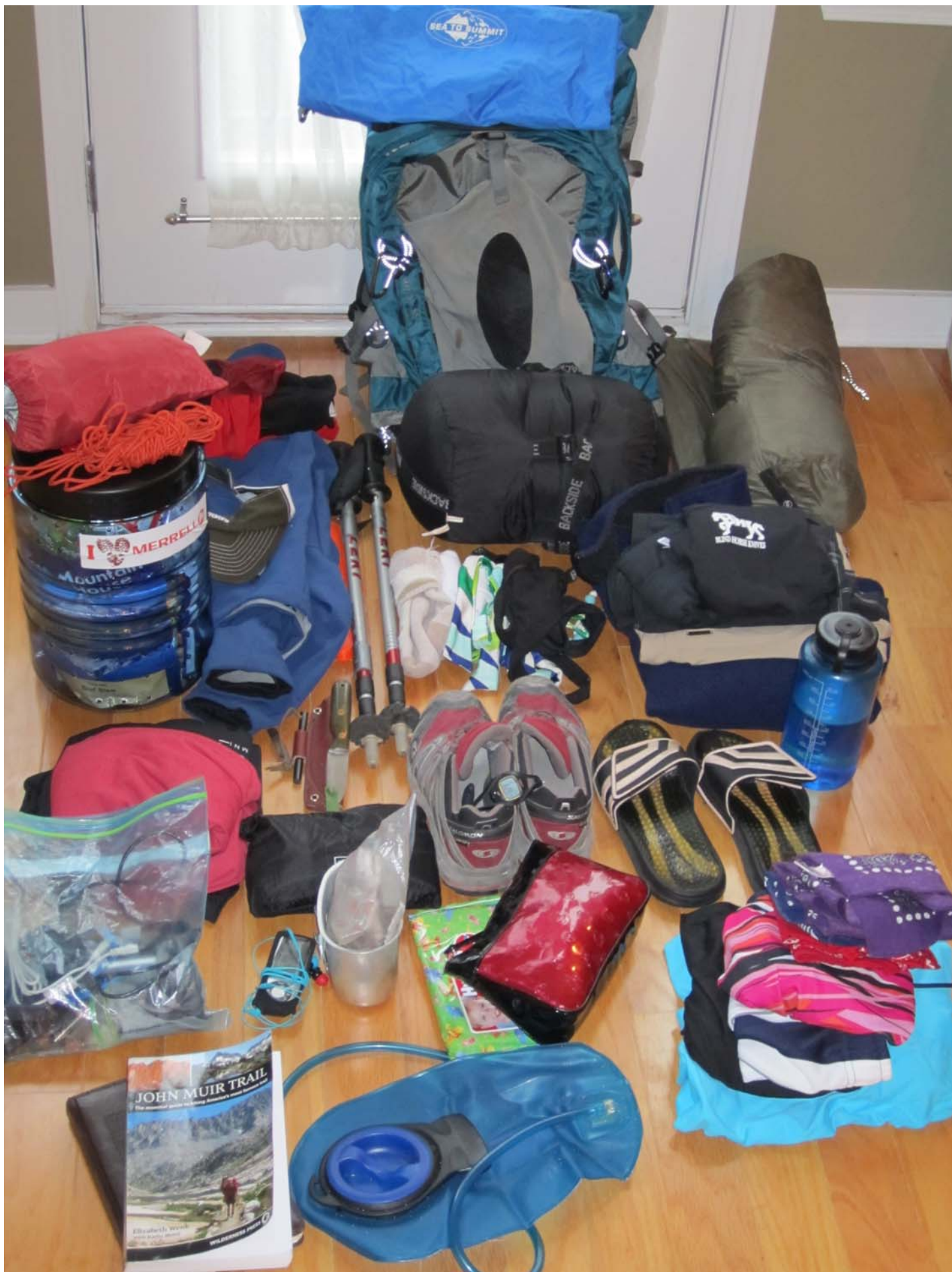
There are many more things we can discuss about our backpacks. For now I am sharing my general list for a 14 day adventure, in 3-season weather and trekking 200+ miles. If you would like the excel version of this list with formulas in place (calculating the weight) or have any questions or comments, please contact me via:

<http://www.facebook.com/paygemcmahon> or

<http://www.turnthepayge.com>







**The contents of the Author's backpack for the John Muir Trail.**



## General Equipment

|  |             |   |
|--|-------------|---|
| Map  | 0           | 1 |
| Compass  | 2           | 1 |
| Duct Tape* <i>wrap around trekking poles</i>                                 | 1           | 1 |
| Head Lamp  | 3           | 1 |
| Flashlight   | 3           | 1 |
| IPOD   | 2           | 1 |
| Camera   | 8           | 1 |
| Paracord (24 feet)   | 1           | 1 |
| Multi-Functional Watch   | 2.2         | 1 |
| Whistle  | 0           | 1 |
| Batteries (lithium are lighter & last longer than alkaline) or Solar Charger | 10          | 1 |
| Plastic Bags (Garbage/Construction & Ziploc)                                 | 3           | 2 |
| Turbo IPOD Charger   | 1           | 1 |
| Carabiner  | 1           | 2 |
| Knife with Ferro Rod or Leatherman   | 11          | 1 |
| Steri-Pen  | 3.7         | 1 |
| Mirror (\$1 combo Mirror/Brush Compact)                                      | 1           | 1 |
| Trekking Poles   | 11          | 1 |
| Tin Foil (2 ft sq)   | 0           | 1 |
| <b>GE TOTAL</b>  | <b>63.9</b> |   |
| <b>lbs</b>   | <b>4.0</b>  |   |

## Clothes

|                                   |              |   |
|-----------------------------------|--------------|---|
| Underwear                         | 0            | 1 |
| Shorts                            | 3            | 1 |
| Yoga Top                          | 3            | 1 |
| Convertible Zip Pants             | 8            | 1 |
| Long Underwear Set                | 10           | 1 |
| Shade & Fleece Hat                | 3            | 1 |
| Fleece Sweater or Down Coat       | 8            | 1 |
| Bandana & Buff                    | 2            | 1 |
| Socks & Socks' Liner (1 Set=3 oz) | 6            | 2 |
| Flip Flops/Camp Shoes             | 5            | 1 |
| Hiking Shoes (Boots)              | 28           | 1 |
| Long Sleeve Wick Shirt            | 4.5          | 1 |
| Poncho                            | 12           | 1 |
| Sunglasses                        | 3            | 1 |
| Softshell Jacket                  | 14           | 1 |
| Scrambling Gloves                 | 3            | 1 |
| Sarong                            | 2            | 1 |
| Ponytail holders                  | 0            | 2 |
| <b>CLOTHES TOTAL</b>              | <b>114.5</b> |   |
| <b>lbs</b>                        | <b>7.2</b>   |   |

## Sleeping & Shelter

|                                | Weight (oz.) | # |
|--------------------------------|--------------|---|
| Ultra-Light Big Agnes Tent     | 64           | 1 |
| Osprey Backpack 75L            | 56           | 1 |
| Sleeping Bag                   | 64           | 1 |
| Thermarest Neoair Sleeping Pad | 8            | 1 |
| Silk Cocoon                    | 8            | 1 |
| <b>S&amp;S TOTAL</b>           | <b>200</b>   |   |
| <b>lbs</b>                     | <b>12.5</b>  |   |

## Food

|   |              |    |
|---|--------------|----|
| Gatorade Packets                            | 1            | 16 |
| Freeze Dried Meals (MRE/ Mountain House)    | 67.2         | 14 |
| Goobers (PB&J)                              | 18           | 1  |
| Flour Tortillas (pk of 6=15oz) and/or pitas | 45           | 18 |
| Granola, Snickers, Protein Bars (1=1.5oz)   | 30           | 20 |
| Dried Fruit Roll Up (1 = 1 oz)              | 15           | 15 |
| Pop Tarts                                   | 10           | 8  |
| Salami & Cheese                             | 20           | 1  |
| Trail Mix with M&Ms                         | 16           | 1  |
| Chicken Pouches (1=7oz)                     | 42           | 6  |
| <b>FOOD TOTAL</b>                           | <b>264.2</b> |    |
| <b>lbs</b>                                  | <b>16.5</b>  |    |

## First Aid-Medical

|  |              |   |
|--|--------------|---|
| Band-Aids, including butterfly (10)                                    | 2            | 1 |
| Mole Skin  | 2            | 1 |
| Liquid Band-Aid  | 2            | 1 |
| Gauze  | 1            | 1 |
| Medical Tape   | 2            | 1 |
| Small Sewing Kit   | 0            | 1 |
| Tweezers   | 1            | 1 |
| Alcohol Swabs  | 1            | 1 |
| Super Glue   | 1            | 1 |
| Ace Bandage  | 3            | 1 |
| Tampons  | 0.5          | 3 |
| Condoms  | 0.5          | 1 |
| Water Purification Pills   | 1            | 3 |
| Emergency Space Blanket  | 2.8          | 1 |
| Granola Bars   | 3            | 2 |
| Electrolyte Powder Packets   | 1            | 3 |
| Whistle  | 0            | 1 |
| Lighter  | 0.5          | 1 |
| Anti-Inflammatory (Advil)  | 0.25         | 1 |
| Antihistamine (Benadryl)   | 0.25         | 1 |
| Antibiotics (Cipro/stomach, Erythromycin/respiratory & Diflucan/yeast) | 1            | 1 |
| Steroids (Prednisone)  | 1            |   |
| Antidiarrheal (Immodium)   | 0.25         | 1 |
| Antiseptic ointment (Neosporin/ Altabax)                               | 1            | 1 |
| Anti-Itch: Calamine lotion   | 1            | 1 |
| Prescriptions  | 0.5          | 1 |
| Epi-Pen  | 2.5          | 1 |
| Hand Warmers   | 1            | 1 |
| Chapstick  | 0.2          | 1 |
| <b>FIRST AID-MEDICAL TOTAL</b>   | <b>32.25</b> |   |
| <b>lbs</b>   | <b>1.8</b>   |   |

## Kitchen Equipment

|                                |             |   |
|--------------------------------|-------------|---|
| Spork                          | 0           | 1 |
| Liter Bottles                  | 16          | 2 |
| Bear Canister                  | 32.2        | 1 |
| Esbit Stove                    | 3.5         | 1 |
| Fuel Tablets (12 per box)      | 0.5         | 1 |
| Military Issue Cup/Pot         | 3           | 1 |
| Lighter                        | 0.5         | 1 |
| Waterproof Matches             | 0           | 1 |
| <b>KITCHEN EQUIPMENT TOTAL</b> | <b>55.7</b> |   |
| <b>lbs</b>                     | <b>3.5</b>  |   |

## Necessities

|  | Weight (oz.) | # |
|--|--------------|---|
| Biodegradable Soap (Dr. Bonner's Peppermint is my fav) | 8            | 1 |
| Toothpaste   | 4            | 1 |
| Toothbrush   | 1            | 1 |
| Dental Floss   | 0            | 1 |
| Sunscreen  | 3            | 1 |
| Body Lotion  | 3            | 1 |
| Mosquito Spray   | 3            | 1 |
| Wetwipes   | 5            | 1 |
| Book   | 6            | 1 |
| Journal & Pen  | 3            | 1 |
| Sleeping Mask & Ear Plugs (if your friend snores)      | 1            | 1 |
| Deodorant  | 3            | 1 |
| Chapstick  | 1            | 1 |
| <b>NECESSITIES TOTAL</b>                               | <b>41</b>    |   |
| <b>lbs</b>   | <b>3.42</b>  |   |

|                     |               |
|---------------------|---------------|
| <b>TOTAL WEIGHT</b> | <b>771.55</b> |
| <b>lbs</b>          | <b>48.2</b>   |







TITANIUM KNIVES

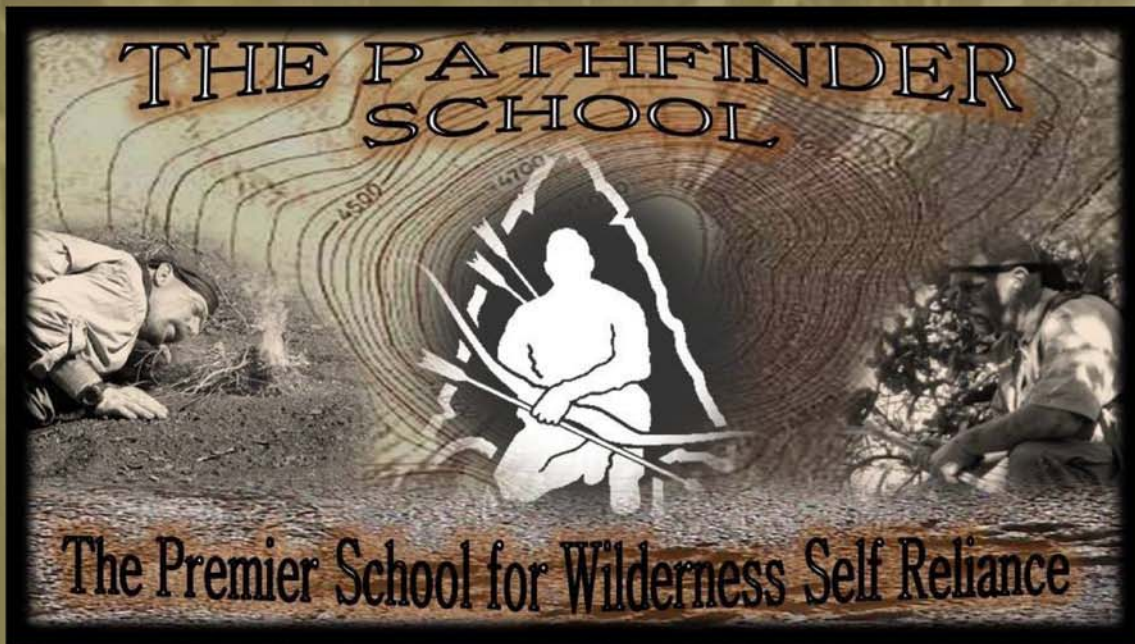
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# What's in my pack?

By Michael Henninger



Everything you need for a day of fun in the woods.

**H**aving spent the bulk of my years on this planet in the woods, my everyday pack has evolved into something that I am quite happy with. I use this kit every weekend when I go out with my dogs. We are either swimming or hiking early in the morning which means we are often alone in the woods.

This kit has everything that I use and does not contain the worst case scenario options that I would have if I wasn't still in civilization. Most items have earned their place or were added after a need arose. I still try to think about including items that have multiple uses and that I am just not carrying something that I may use someday...

Most of the items are centered around the dogs for obvious reason. I'll briefly hit on these

items so you can see what I picked and why. Most things are duplicates since have two dogs.

Most of the trails near us require leashes, so we start with two Sportdog electronic leashes. As a backup for busy trails, I have 2 leashes from Scott's Knots. A good insurance for safety are the lighted collars with pup-lites. Think of them as headlamps for dogs. Next are the stainless steel dog bowl and Nalgene bottles for water. Rounding out their stuff is a roll of bio-degradable poop bags and some string cheese for a snack.

When Mike isn't running the best magazine in the world, he is hiking with his dogs or mountain biking with his wife. He loves being outdoors and would much rather be in a tent than just about any place. He is also a member of the Fort Pitt Land Rover Group and can eat with chopsticks.





**Above Left:** Flashing collars and head lights for safety.

**Above Center:** A great addition to your first-aid kit when hiking with dogs.

**Above Right:** Poop bags are great for lots of other uses. They make great storage, water tight containers, and the size is perfect at just over 1 liter. They are even bio-degradable.

Some of the multi-purpose items may be obvious and some may not. The leashes are both made from para-cord and each one contains almost 100 feet of true 550 cord. They both also contain a carabiner. If need be I can use the dog bowls to boil additional water and store it in the Nalgene bottles. The poop bags are a simple container but a great size. Last but not least, we can all eat the string cheese.

The next big thing is the first aid kit. This is your basic human first aid kit with the addition of swabs that aid in clotting which can be an issue with dogs. I also made sure to include a number of blister treatments, including mole skin and new skin. In addition to treating humans, I have used it as padding on cut dog pads.

My personal kit is relatively small for the day to day travels. But, I change it for every adventure based on the weather and if there is active hunting or not. I tend to wear a lot of blaze orange in the fall and the dogs wear bells on their collars year round. I find that helps me keep track of them as well as warn other hikers and animals of the dogs' presence. One thing not pictured are the trekking poles that I take if we are hiking in hilly or rocky terrain.

The back pack I use is an old design by Lowe Alpine. The Contour Mountain 40 is a tear drop design that hugs the body forcing the weight to the low back of the wearer where it is supported by the hip belt. I like this design for the fast paced walking

that we tend to do with the dogs. They definitely push me to my max speed. So a lightweight pack that doesn't interfere with my natural stride is very important.

Items are packed in order of importance. Least used items go in first and the more frequent the use the closer to the top items go. The cord leashes go in the side pouch of the pack so I can grab them without removing it. I like having a pack with extra space so I can carry an extra kit for my wife as well.

A couple of extra pieces that have earned their way in are the quick wipes. I can attest that they even remove pen from the dogs' coat (don't ask). My BHK bushcrafter/ tiger knapp piggyback goes everywhere with me in the woods, which means that I also have my fire steel as a back up fire device if my Zippo fails.

So this setup might not work for you, but it something that I am really happy with. It has really evolved into what it is today, a dog friendly EDC pack.



**Custom dog leash from Scott's Knots provide almost 100 feet of paracord.**





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Invisibility ..... June 15-18

Summer Plant Class ..... July 7

Fire Making ..... July 10-11

Survival 1 Weekend ..... July 13-15

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# *The Roof, The Crown of a Shelter*

By Caleb Musgrave



Author with traditional Ojibway Wigwam, using birch bark shingles and cattail thatch to shelter him.

## Introduction

A roof is in any sense of the word, overhead protection from the weather. This can be as complex as splitting shingles out of a cedar or pine log and pegging them down onto an A-frame structure. Or as simple as finding a spruce tree with enough branches to shed the majority of rain or snow. That being said, the primary focus of a roof is that it sheds weather effectively. The secondary importance of a roof is that it holds in the heat, whether it is from a stove, a fire, hot rocks or the occupant's body heat. If a roof made in nature can accomplish both of these objectives, it is adequate for wilderness living.

There are a multitude of materials that can be used for making a roof, from tarpaulins to tar paper. However this article will focus only on the materials found in nature, specifically in the Canadian Boreal forest and the Hardwoods of eastern North America. Though this article focuses on just those two regions, the concepts inside of this article can be replicated practically in any other region of the world with a creative mind.

## Bark

Bark is one of the more effective roofing materials found in nature, as it can be rolled out onto a fairly flat roof, and still shed rain adequately. This feature is not as possible with the thatches found in the woods. Practically any bark will do the job for a short term dwelling, however in any long term lodge; the majority of barks will degrade, crack and/or rot.

In this aspect only a few barks are effective, with birch bark being the most superior and longest to last. This is due to its oil content resisting rotting.

Caleb Musgrave is an Ojibway man from Central Ontario Canada. He has spent well over three quarters of his life learning from Native and Canadian Woodsmen of high regard including; Wilmer Nadjiwon, Dr. Gino F. Ferri, Craig MacDonald and Pinock Smith. Caleb often works as an Aboriginal Liaison for Archeologists; bridging the gap between the scientific/anthropological community and his Native peoples. He currently resides on his family's Native reserve, where he teaches at the wilderness school 'Canadian Bushcraft' and constantly lives the self-reliant lifestyle.



The beauty of birch bark is that it can be peeled from either living, dead or even rotten trees, and still remain effective. A birch bark roof, if well maintained, can last a decade. Elm bark in the eastern hardwoods is also effective and can last up to five years respectfully. Other barks that can do good jobs in the Boreal forest are spruce, poplar and pine, though again, birch is best. Spruce is second best, and can come off in effective sheets, that can be used as is, where poplar and pine have the tendency to split or crumble within a few weeks of use, or even when being applied.

Other than in spring when the sap is running and the bark is easily removed from a tree, bark is in general very difficult to gather in effective amounts. Birch bark is often the only roofing material capable of being peeled from the trunk in any season. Even then however, hot water or a torch may be needed to heat the bark enough to make it peel off the tree. Winter time it is nearly impossible to remove any bark from any tree.

The best technique for using bark, or any natural roofing material, is in a shingle style. Starting at the lowest point of the roof, the sheets of bark are

laid down and either tied in place, or poles laid on top of them as weights to hold the sheets in place. Gradually more sheets of bark are added moving up the roof, leaving at least a hand-width of overlap between the previous layer and the new layer. This overlap is the secret to an effective roof, as it allows the rain to run down the outside of the roof rather than find a gap and leak inwards.

A single layer of bark on a roof is effective in many aspects, however in seasons where heavy rainfall is present, two layers is a wise move.

### Boughs

Though bark is the most effective in the north woods as a roofing material, it is not always applicable. Boughs -the needle covered branches of conifer trees- are often in much greater abundance, and easier to gather than bark. The downfall of nearly any bough is that it must be on a roof that is steep, as a flat or domed roof would allow water to leak through. Boughs are simply the thatch of the Boreal forest, and in that sense must be looked at as such.

Spruce boughs are often the most common



A-frame shelter with spruce and balsam fir boughs to keep it dry. Note poles to help hold boughs in place from wind.







**Open front wigwam with several layer of thatch, consisting of reeds and cattails. Flat part of the roof covered in cedar bark.**

and of greatest abundance. However this does not make them superior. Because of the rounded shape of the needles coming from the branch, the resulting roof is not tightly packed, and therefore rain can come through.

The better choice is the boughs of a Balsam fir tree. Often nicknamed in the old days as “Mountain Goose”, this was due to the fact that it was the Down-quilt of many a woodsman. Balsam fir boughs are superior to spruce boughs because of the flatter formation of the needles on the boughs. This allows a tight packing of roofing material, which will shed rain much more effectively.

If one had a protractor with them in the wilderness, and decided to measure what angle their roof should be, it would be very quickly determined that the steeper the angle, the better the roof will shed rain. The more inferior the roofing material is, the steeper this should be. Forty-five degrees is the most shallow any thatched roof should be, and seventy degrees is the steepest (after that, the roof

will be nearly vertical and is now officially a wall that lets rain and snow in from above). A happy medium between forty-five degrees and seventy degrees would be best, though this should be determined by the severity of weather. For the rainy weather, seventy degrees of pitch should be the choice angle. The more it rains, the steeper the roof ought to be, and the more boughs be packed into the roof.

Again, when building such a roof, it is best to start at the bottom and work upwards, like shingles. Adding crossbeams or sticks that can snag and hold the boughs in place is a wise move. The best technique is to make a large pile of boughs at the foot of the roof and from this select the thickest boughs (the branch the bough is made from should only be thumb-thick at the thickest point). Use these as a lattice work by covering the entire framework with the thickest boughs. It doesn’t need to be tightly packed, just spread out so that the ensuing bough roof has something to snag onto and hold it in place.





**Another angle of the open front wigwam, showing the detail of the thatch. Roof provided satisfactory shelter from a torrential downpour.**

Next, starting at the bottom, take the next thickest boughs and lay them, tip down and butt up. This way when the roof is done, the needles will act like small channels, guiding the rainwater down and away from the shelter. Repeat this action upwards, making even and thick bunches in the roof.

Once the entire roof is covered in boughs, use the remaining ones to fill in any gaps that are noticeable. Check from the inside to see if light is coming through, and if so, place a stick through the gap so it can be seen from the outside, and fill the found spaces in. Done properly, a bough roof will shed rain and hold in a considerable amount of heat.

### **Grasses and Other Thatch**

Long grasses, sedge, cattails and the common reed (phragmites) all are effective thatching material. Thatched roofs date as far back as the Neolithic era in Europe, and perhaps just as respectively ancient here in North America. From Wickiups, to Colonial houses, thatched roofs have proven to be efficient, though labor intensive. The larger stalked plants such as reed and

cattail hold an incredible amount of insulating value. The Ojibway people wove cattail mats to be used as both roofing and bedding.

The hardest task is to get enough material to get the job done. It can take up to fifteen hug sized bundles to properly thatch a lean-to for a single person. It is best to gather the dry, dead standing stalks, rather than green plant matter, as it will shrink when dried and become loose under whatever bindings are used to hold it in place.

Using properly placed rafters, lash the stalks upside-down to the rafters, again starting at the bottom. Lash just the butts of the stalks to the rafter, as the tips should hang freely to help shed rain and offer insulation. Use

handfuls, and bind tightly using one continuous cord for each layer. Pack the bundles tightly together and make sure the layers overlap each other by at least half their length. If the grass stalks are two feet long, the next layer of grass stalks should overlap the first by at least a foot. This covers gaps and makes for a tight wall that resists wind and rain.

The pitch of the roof should be no shallower than fifty degrees. Seventy degrees is optimum. Once all layers are lashed down tightly by their butts' ends, give the roof a shake to "fluff up" the thatch. This helps the grasses or other thatch shift into a



**Seven person Debris Hut. Over two years old and still shedding the majority of the weather and holding in the majority of the heat!**



proper position and interlock with one another.

## Debris

The classic survival manual staple, debris. Dead leaf litter from the forest floor heaped up on top of a frame whose latticework or crossbeams are close enough to catch the leaves and hold them in place. The focus of such a roofing material is almost completely insulation, as unless immense amounts of leaf litter is added (to the point of depleting all nearby supply) to the shelter, rain will trickle in from every conceivable and inconceivable direction! The trick here is to make sure no sticks protrude from the framework, as they will become channels for water.

Just like thatched roofs or any other natural material roof, the hardest job is acquiring enough roofing material to get the job done. The use of a jacket or shirt will be useful as a bag of sorts to heap the collected leaves in and carry back to the framework. A simple tip is to go as far as 300 yards from the shelter and begin collecting out there. That way as the day wears on, and energy gradually lowers, leaf litter will still be nearby to use.

The roof should be started with a thick layer piled high to the top of the framework. Once this first layer is added, push it down to the bottom, packing it into a dense pile much akin to the size of a hay-bale. This will make a good platform for the next layer of debris, and also help show how thick the roof must be to both insulate and shed rain. Repeat the process until the entire framework is covered in a densely packed roof that is as thick as an arm is long. Lay poles or branched sticks across the roof to hold the leaves in place.

Every few days to a week or so, the roof will settle, becoming less insulating and more prone to leaking. Add more leaf litter every three or four days. These new layers will not have to be as thick as the original roof, but they should be packed densely as before. Another option is to remove the roof every week, stir it up with a stick or a foot and then return it to the frame of the shelter. This is very similar to fluffing a pillow.

The true beauty of a debris hut is, that when most other materials are difficult to find, a roof can still be covered with debris.

## Skins

From tepees to the occasional buckskin door flap, animal hides have been used to shelter mankind since at least the Paleolithic period. Even Mongolian yurts use animal hide in a sense (wool being felted

into large mats). The biggest problem is hunting enough animals to cover a shelter. Another important thing of course is preserving the hides so that they do not rot or attract animals into the dwelling! The thicker the hide, the better it sheds the weather. It is difficult to get in large amounts when alone; however no one can argue the value of such a material for the wilderness dweller.

## Conclusion

Large green leaves, boards split out of logs, ferns and a multitude of other materials are out there along with the previously highlighted materials. As well, do not think a roof must be made strictly out of one medium, as thatched roofs often go well with bark shingles. Experimentation -just like in any other bush skill- is paramount to the success of any endeavor. Practice and experience will grow from trial and error. Over time the results will be put together faster, neater and more efficiently. Angles and measurements won't have to be figured out. A "feel" for how it should be will come with time. Over the years, some frustration and much enjoyment will come from experimenting with roofs for an outdoor abode.



Roofing material can vary greatly. If the wilderness wanderer finds himself in the north woods with an axe, a simple lean-to can be constructed which will shed the majority of weather by simply using 5-6 inch thick logs and chinking the gaps with any material her/she may find (debris, pine needles, dirt, etc).



# Southern Grind

By Dan Coppins



The knife is right at home on a backpack with all of it's attachment points.

Just recently at the Blade Show in Atlanta Georgia, I ran in to an old friend named Rodney Shelton. I almost did not recognize him without his ten gallon cowboy hat. Rodney is a longtime knife maker of 40 years. After talking to him a bit he took me to a table and introduced me to another knife maker, Scott Shelton. Yes, this is his son.

Scott has been making knives for 15 years and as of 2010 Zac Brown (long time personal friend of Scott) started "Southern Grind" knife company. Not only is Zac Brown a well-known country singer he is also a knife maker who was taught the craft by Rodney. Together, with their passion, a family-oriented business was created. A small group of good ole boys including Zac Brown, Scott and Rodney Shelton, Mike Trule, and Derick Head, have a great love of GOD, knives, and the great outdoors with a background of hunting and fishing.

Scott is a third generation knife maker and gives credit to his dad for teaching him and Zac how

to make knives. When we asked Scott what made him want to make knives, his reply was: he grew up around them, thought they were interesting, and it would be a challenge. Little did they know how much of a challenge it would be to go from custom knife making to production knife making. After many long hours and hard work they had arrived.

One of the first things I noticed on Southern Grind's table was a very cool machete with a bowie tip. They tell me this is just one of seven in the series with this one being the largest. It did not take me long to ask him if I could do a review on it for our readers at SRI. With all that said let's start the

Dan Coppins is co-owner of Blind Horse Knives and has been hunting for over forty years. Dan has dashing good looks and is not afraid to tell you about them. Dan is also one of the Co-Founders of Self Reliance Illustrated.





**Top Left:** The kydex retention strap on the sheath allows quick access to the knife.

**Center Left:** The Author was able to clean up some wind damage from a recent storm with the knife.

**Bottom Left:** Unique design laser etched knife and sheath combo.



review.

The knife was designed by Rodney Shelton and given its name "Grand Daddy" by Zac Brown. This knife has a full tang and is made of reclaimed carbon metal. Southern Grind knives are differentially heat treated. It is a bowie style knife with an overall length of 16-7/8". The blade itself is 11" and has a 5-3/4" black micarta handle with the Southern Grind logo laser etched on the micarta. The handle is attached with three special design stainless steel screws.

Their uniquely designed sheath is made from Kydex and is put together with nickel eyelets. It has the same Southern Grind logo laser etched randomly on the front of the sheath. The inside is etched with information about their company and their website address. There is a belt clip on the sheath as well as an adjustable webbed strap for the leg. Their knife is packaged in their own custom designed box. The sheath also has a very cool lockup system that Scott himself designed. The kydex snaps into a slot cut into the knife that you can release with your thumb allowing the knife to break free out of the front instead of having to be drawn out of the top like a standard sheath. The sheath has a metal clip to put over your belt so you won't have to undo your belt to put it on.

The intended use for this knife is NOT whittling Scott said with a laugh. They wanted to make a knife smaller than a machete that they could take to the woods. Scott also tells me they have done some testing with the military.



Scott nailed it here with a really great lockup system. The kydex snaps securely into the cutout into the blade.





**This is a very cool looking small machete with a bowie tip.**

I find this knife wears well on my side and I love this sheath with its break front design. This knife will be right at home in a pack, or even strapped to the outside of a pack as there are no shortage of attachment points in its design. If you choose to pack it, strap it to your side, or just have in your vehicle for when you need to clear some brush or cut some wood, this would be a good choice. At the current asking price of \$225.00 I think it's a great deal. If you like what you see, visit their website [www.southerngrind.com](http://www.southerngrind.com) and get ya one.

This knife is made in America with Southern Ground pride. GOD bless anything made in America these days. This is one of those pieces I would like to spend more time testing. But I can't meet my time

line, so it will have to do for now. I will be taking it with me in three weeks to my proving grounds on the long trail in Vermont for further testing.

Please feel free to check out all the other things our friends from the south are into like The Zac Brown Band, Southern Ground Artists, Lucy Justice Goods, Southern Hide Leather, Baby Goo Hospitality, Southern Reel Films, Weimerhound Publishing, and No Reserve Touring. Contact them at: 1700 Marietta Blvd. NW Atlanta, GA 30318, by Phone at: 404-941-3480 or visit <http://www.southerngrind.com> Oh and tell them SRI sent ya!

Dan Coppins



**Reclaimed carbon steel blade with micarta handle.**



# *A New Fix on an Old Knife: The Ak-47 Bayonet*

By Dan Mervine



An AK 47 fit with a Russian style bayonet.

**T**he term AK-47 brings up an image of a durable and inexpensive to produce rifle that *works* in some of the harshest environments known to man. Shortly after the mass production of the AK a companion bayonet with the same durable features was born. If you need a tough and affordable bushcraft or combat knife the AK bayonet is a great choice after a few small modifications.

The first issue is the handle; the bayonet (Russian version) comes with a wooden grip and leather strap on the back of the handle. The main purpose of the leather strap is similar to a lanyard but instead of a loop that goes around your wrist, the strap goes over your hand to keep it secure when using the knife for fighting in the reverse grip. Now assuming you won't be doing any reverse grip knife fighting any time in the near future, I found it to be more comfortable for whittling and other woods crafts without it. To remove the strap un-loop the metal ring from the front of the knife and slide the strap off the back of the knife, though I wouldn't cut off the strap just in case you might want it later for display reasons.

So with the strap gone my next goal was to make the grip more comfortable. This can be done several ways; one way is to wrap the handle with

Camo-form, this a great solution if you are in a rainy area as it will keep its grip even when wet. Another wet condition grip solution is regular (if you don't mind a slightly tacky look) medical tape, which is almost the same as Camo-form just not quite as thick and can also be picked up at the local dollar store, just wrap it around the handle and cut the tape at your preferred length (the more you use the thicker the handle). This also gives you a makeshift bandage in an emergency situation.

The second option works really well to make the handle more comfortable and also a bit beefier. Cut a piece of bike tire inner tube about four-to-five inches long and simply pull it over the handle. I have found the best way to do this is to roll the inner tube down the handle to the hilt and then unroll it, leaving the inner tube flat along the handle. This is a very common man way to make any knife handle "grippier" and I have found it very satisfactory.

The next issue is the blade. The knife usually comes with a rather dull and durable edge. If you



The AK bayonet with a section of inner tube around the handle.

Dan Mervine is a Christian who dedicated his life to Christ 7 years ago and has found the best way to get on the same page with Him is to be out in His creation. He also practices martial arts, traditional archery, slinging, hunting, and enjoys regularly practicing his second amendment rights.





**The AK sheath fit with elastic bands and a fire steel striker.**

don't plan on using it on the end of an AK to bayonet the enemy, or using it as a shovel, the main edge should be sharpened. In my experience, I have found a fine file and a sharpening stone do the job well enough to get the edge very sharp.

Now in my view every bushcraft cutting tool (whether it be an axe, knife, tomahawk, or machete) should be capable of cleaning and skinning game if need be. So after rigorously sharpening your knife to a new razor edge, the next thing to do is to take a fine file and file down the bowie part of the blade down to a false edge. This will make it much easier for cleaning game as you don't have to worry about cutting the guts and possibly spoiling the meat.

Now that we have the blade and handle where we want the last issue is the sheath. The sheath itself, assuming it is in good condition needs no further modification but there are a few helpful add-ons that can be very useful in the field. If you use a fire steel often to start a fire like I do, a proper striker is necessary. I have used the saw back on the blade in conjunction with fire steel to start a fire. However; it does require very flammable tinder such as cotton balls or trioxane and you would be hard pressed to light natural tinders in wet or windy weather. So here is a helpful hint I have found very useful.

This is also a great common man solution: first cut a piece of bike tire inner tube about 4 inches long, next cut it into four equal "bands", lastly slide all four elastic bands up onto the top of the sheath. By doing this, you will have a nice elastic strap that you can use to hold small items around your sheath. You can put almost any small item under the bands

such as fish hooks, band aids, or wet fire cubs, but I prefer to always have a fire steel striker and a piece of aluminum foil, at least a foot long, folded down to about 1 inch square. The foil is great for boiling water and it can also be used for signaling. Now as far as the striker, I found that having a striker can be a great aid when out in the woods. I have started many fires with only a knife and fire steel only to realize after the fire is started that my knuckles are all torn up from my hand ramming into a rock after striking the fire steel.

You can put an entire mini-kit under the bands. But I was never a big fan of bulky sheath kits. So now we have a comfy handle, a good bushcraft blade, and a sheath capable of holding small items and also a few extra elastic bands which we will discuss later.

The main thing that sets the AK bayonet apart from other knives is its versatility. The AK bayonet is like the multi tool of knives with a multitude of uses. There are hundreds of uses for every sturdy fixed blade knife such as batoning, whittling, skinning and cleaning game, cutting cordage, and many more. The AK bayonet can do all of these well, as well as many other unique uses. However I wouldn't suggest prying with it, as the wire cutter hole does slightly weaken the blade. The back of the blade includes a saw back which really excels for things such as notching traps and deadfalls.

One of the other great features is the wire cutter. I have found myself in many situations where the wire cutter has proved itself very useful in the field, and here are a few examples. Obviously I have





**The AK bayonet hafted on the end of a hard wood staff to make a formidable spear.**

found they are very useful for cutting wire such as snare wire or if you are in a combat situation it could be very useful for barbed wire. Also in an emergency the wire cutter hole can also be used to aim the reflection off the blade towards help and serve as a makeshift signal mirror. It would also work well for cutting pieces of wire fence for making darts for a blowgun, or if you cut 3 or more you can lash them to the end of a long staff and use it for spear fishing, and you could use them for making an awl for punching holes in leather and other tough materials. Another great use is for cutting small switches or saplings up to about thumb thickness.

This is great for beginners, as it is safer than chopping and also great for edge preservation in a survival situation where a keen edged knife is priceless.

I have really enjoyed experimenting with this next feature. As with most bayonets the AK bayonet includes a loop on the bottom side of the handle, this acts both as a hilt and also helps to secure the knife to the end of a rifle. In a survival or wilderness self reliance situation confidence in your ability to defend yourself from dangerous predators is critical. Other than a defensive barrier, a good three-to-six foot spear will give piece of mind and self confidence, which is very valuable in the woods.

So here is a great way to improvise a spear from an AK bayonet and a sturdy and straight hardwood staff. First whittle down one end of the

staff so the bayonet fits tightly (it will also help if the whittled portion has high angle corners to prevent the knife from twisting), about one inch down the handle. Next slide the bayonet down the shaft and remember those elastic bands around the sheath? Use one of the bands and pull it over the blade (be careful) and onto where the handle and staff overlap (I prefer about  $\frac{3}{4}$  of the way down the handle). Now you have a serviceable thrusting spear. If you want to use it for slashing as well, I would suggest adding a lashing around the handle and staff. I can improvise one of these in about a minute with just an AK bayonet and this spear is much more effective than a standard wooden spear and also much safer as you can remove the knife when hiking. Never throw this spear. If the knife hits a rock it may damage the blade. If you plan on doing some hiking, for safety reasons, I would strongly suggest removing the knife from the end of the staff. This will give you both a good walking stick for digging and knocking edible nuts out of trees among other things and also gives you a knife on your hip ready to use when needed.

The AK-47 bayonet is also a great common man knife as they usually only cost around \$25 dollars and even the nicest ones are around \$50 so purchasing one won't break the bank. Lastly, the AK bayonet excels as a fighting knife and won't let you down in even the worst odds.






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# Knots

## Cobra Weave

This issue's knot is more of a weave, or a stitch, I've heard it called both. The Cobra Weave is not a knot you can readily use around camp but it is one you might have with you or see at a gathering. This is the weave most people use to make a survival bracelet. They typically contain six to nine feet of paracord and are worn on the wrist. I have seen them attached with BDU buttons, a lanyard knot, a Fastex buckle, stainless shackle, all sorts of stuff.

This is a pretty simple weave to master once you get the sequence right. When you have the survival bracelet mastered, about 8 inches long, continue it out to six feet and you have the beginnings of a dog leash. Three feet, the makings of a gun sling. One weave can serve lots of purposes. Roughly one inch of weave equals one foot of para cord so that gun sling will house lots of useable cord for you.

Another weave is the King Cobra weave where you weave, for example, an eight inch section then reverse direction and weave another section on top of what you just weaved. It comes out wider and fatter and, obviously, has more para cord. A little bulky for my tastes as a survival bracelet, it makes for a great gun sling with the extra width coming in handy for padding on your shoulder.



Image 1

I joined two different colors just to show the weave better. You can use just one color and it will be one long piece of para cord. Two colors will net you two pieces of equal length for use later.



Image 2

I have made a simple loop around a carabiner for the attached end. This can be a key ring, one end of a Fastex buckle, whatever (this will be a color key fob when done).

Scott Wickham Jr. is an apprentice knifemaker at Blind Horse Knives. In addition to knifemaking he has been writing for ten years now and has had a love for the outdoors since a young age. Scott is also the co-founder of the Fort Pitt Land Rover Group and when he is not making knives or writing can be found in his Land Rover.





**Image 3**

Pull out the ends to the length you want the fob (or survival bracelet) to be. This one will be 7 long.



**Image 6**

Pulled tight. With this first piece tight, you can see the horizontal will be green and the edges will be orange (and the direct opposite on the other side).



**Image 4**

The working end on the right, make a loop and take it behind the two pieces.



**Image 7**

Now take the left working end and pass it behind both pieces.



**Image 5**

Now take the piece on the left down around the right piece (orange), and through the loop you just made.



**Image 8**

The right working end will go behind the left end...

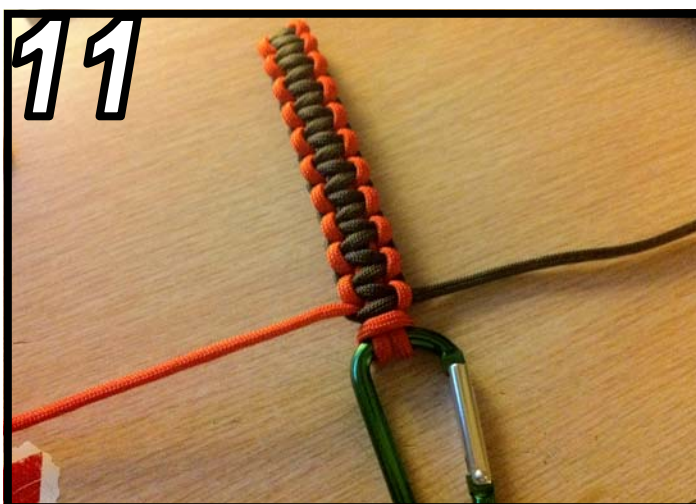




**Image 9**  
...over the two standing pieces and through the loop from the left.



**Image 10**  
Pulled tight.



**Image 11**  
This is the pattern the whole way down, left one behind, through the hole, pull tight. Right one behind, through the hole, pulled tight.



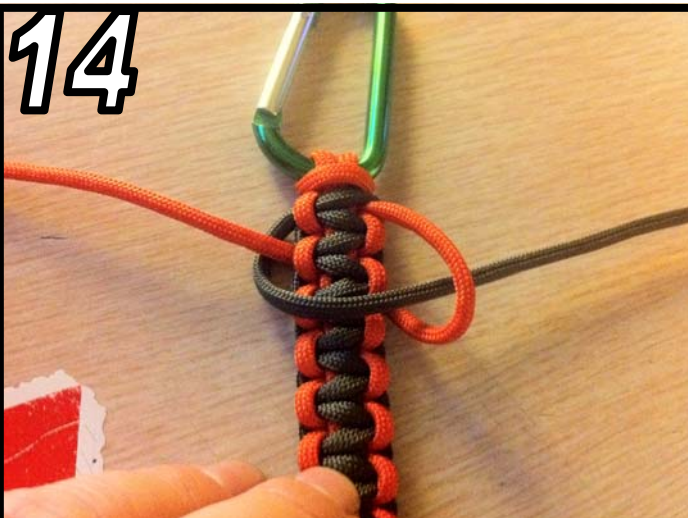
**Image 12**  
Finished up with the weaving. You could trim the ends about an eighth inch from the end and melt it with a lighter and press it into the weave. I'll now go back over this weave to show the King Cobra weave.



**Pic13**  
You could start this from either side. If you put the right side behind first (orange), you'll have the same color pattern on each side. If you start with the left side behind first (green), you'll alternate the color pattern from what you just tied.



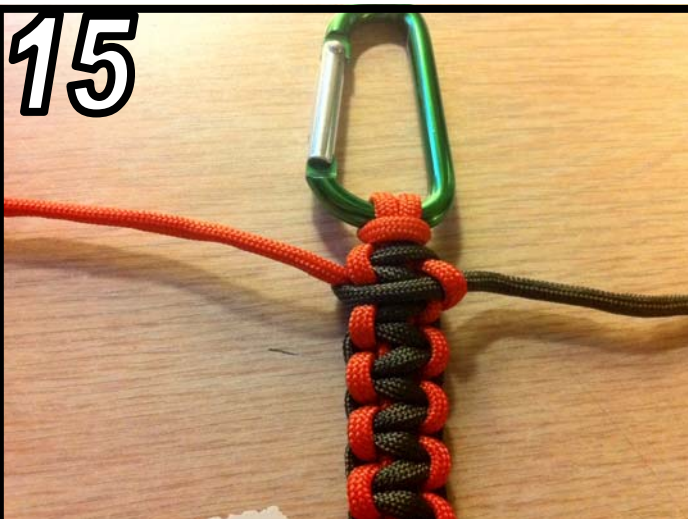
# 14



**Image 14**

I'll use the right side so the color pattern is the same.

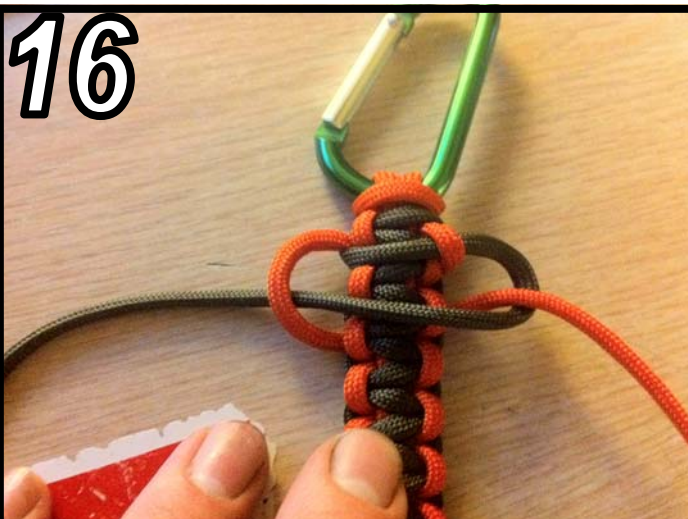
# 15



**Image 15**

Pulled tight.

# 16



**Image 16**

Second weave.

# 17



**Image 17**

Pulled tight.

# 18



**Image 18**

Continued half way down.





Image 19

Finished up with the King Cobra weave. Now I'll melt the ends.



Image 20

Cut it... Melt and smash it in.



Image 21

The other side.



Image 22

Done. Ready to hang your keys on and clip to your pants. You now have about 8~9' of 550 cord with you to use in an emergency.





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# GSI Billy Pot

By Tim Stetzer



A homemade hobo stove nests nicely inside the GSI 1.75 Quart Straight Pot. The stove and pot combo ensure you can boil up some water in just about any place you find yourself.



The GSI 1.75 Quart Straight Pot is coated in a durable blue enamel finish. It's reminiscent of the old camp gear from years past but is still quite functional today.

While there are many solutions to outdoors cooking one of the simplest and most versatile is the simple pot. The pot is the mainstay of any camp cook set and usually the most indispensable piece. Pots can end up ranging from some pretty expensive high end titanium affairs all the way down to free, homemade hobo pots made from empty coffee cans or the like. This basic style pot with a bail has taken on the moniker of “billy” in the bushcraft world, stemming from the Australian and British use of the term. If you're looking for something between a homemade pot, and a high end ultralight model, then the GSI Enameled 1.75 Quart Straight Pot might be just the thing for you.

I had been looking for a billy pot for quite some time and had been eyeballing some of the ones available at the various outdoor and bushcraft supply stores online. Now, most of my field cooking is done on a backpacking stove with a titanium MSR Titan Tea Kettle so I really didn't want to spend a lot on a billy that would see infrequent use for me. By the same token I wanted one in my kit. The billy pot is probably the most versatile piece of cooking gear you can own, particularly with a bail. Regular readers of SRI will have seen John McCann's article "Hail to the Bail" in the premier issue and he does a good job of covering the usefulness of the bail on a

pot in the field. It allows you to hang your pot over the fire in various ways and also makes it easy to fish out of a fire, lift off of a stove etc. It's a handy thing to have and something I definitely wanted on my billy pot. With the bail the billy pot can be used in darn near any cooking situation short of a microwave. On a gas stove, on top of a wood burning hobo stove, hung over a fire, or even stuffed directly into the coals. The bail provides a means of hanging or fishing the pot out of just about any situation and really helps make the billy a pot that can be used just about anywhere and on any sort of cooking source likely to be encountered. I also wanted a pot big enough to boil water for a couple of backpacking meals at once, but still light and portable enough to carry in my pack. With these criteria in mind I eventually stumbled across the GSI

Tim Stetzer was born and raised in Western Pennsylvania, an avid camper since the age of 12. Tim has served in the US Army, the Air Force Reserves and is now a Police Detective and enjoys shooting, knife collecting and hiking. Tim has been writing professionally since 2006 and helped found the online outdoor magazine, Woodsmoney.com in 2008. Tim is currently Associate Editor of Woodsmoney.com







The bail on the GSI billy is pretty handy both for cooking and storage. When the pot isn't in use just hook it on a limb and keep it out of the way.

1.75 Quart Straight Pot after being clued into its existence by a friend. The size and features were just about perfect for what I was looking for, and the weight was within reason. Once I saw the price I was sold and immediately ordered one. The GSI pot carries and MSRP of only \$9.95! I ordered mine through a link from the GSI site and actually got it for a buck less. That really makes it a piece of kit that the common guy can afford.

The GSI 1.75 Quart Straight Pot weighs in at 16.9 ounces with the lid (13 ounces without it), and stands about 6.75 inches tall to the top of the lid handle. Diameter is just over 6 inches. My measurements differ slightly from what GSI lists but those are the numbers that I got. While GSI lists the capacity at 1.75 quarts my pot holds 2 quarts if you fill it up to the brim. Construction is of heavy gauge steel covered in a blue speckled enamel finish. GSI stated that the pot has been kiln hardened twice at 1400 degrees to make it stand up to scratches and chipping. The process is also supposed to help even out heat distribution when cooking as well. Construction seems quite good and the pot is solidly made and the enamel evenly and consistently applied. The bail is of sturdy wire and will remain upright once you crimp the ends tight where it attaches to the pot swivels. The lid sits squarely on

the top of the pot but is a little loose. Perfectly fine for cooking but it'll need secured if you plan on strapping the pot to the outside of your pack.

I used my GSI billy off and on a number of camping trips this spring. I tested it in the house before I ever hit the woods on the gas stove and I used it on a couple of different gas camping stoves including my Snow Peak Giga Power once in the woods. The GSI is kind of big for the Giga but worked fine as long as I made sure the stove was level and solidly placed. I also tested it out on top of



The GSI billy worked with this homemade hobo stove like it was made for it. It was perfectly sized for the pot and also very inexpensive to make.





**Left:** With the use of a simple pot hook you can hang the billy above the fire on a crossbar. Having multiple hooks of various lengths helps you get the pot to the appropriate height needed for cooking or simmering over an open fire.

**Below:** The billy worked quite well with a number of backpacking stoves as well. As long as the stove was on level steady ground it had no problems bring water in the pot to a fast boil.

a homemade wood and twig burning hobo stove that knifemaker and Woods Monkey and SRI contributor Brian Andrews made out of an Ikea stainless steel utensil holder. The hobo stove proved to be a great match up with the billy as it nested inside like it was made for it. I stuffed the stove in a cloth bag to keep it from getting the inside of the pot dirty or scratching it up, and that also kept it from rattling around while you walked with it on your pack too. Once the various stove testing was done I tried the billy right on and in the fire as well. I fabricated a cross bar and whittled a pot hook to hold the pot by its bail above the fire and also tried it directly in the coals. Both cooking methods worked well with the GSI pot although tweaking the correct height above







**The hobo stove took longer to bring water in the billy to a boil than the gas stove but it has the benefit of not needing anything but natural fuel. If you're looking for simple, the GSI billy and a hobo stove are the way to go.**

the fire is sometimes a little tricky. The fire left the billy rather blackened and scorched but the look didn't really bother me. It had a nice well used and well-loved appearance to it when I was done. Much to my chagrin though I found that the billy's enamel actually cleans up quite well when I actually washed it at home with some soap and water. If you like the black you may want to hit the bottom of the pot with some black stove paint instead!

All in all I have to say that the GSI billy is a heck of a deal. For under \$10 you get a solidly made

pot that works well on just about anything you might possibly cook on in the field. It's small and light enough to pack and has enough capacity to be useful for multiple users at once. If you're in the market for a billy and on a tight budget the GSI model is well worth checking out. Even if you aren't on a budget, it's a darn nice pot and worth checking out anyway!

- <http://www.gsioutdoors.com>



**The billy will hold a full 2 quarts of water if you fill it all the way to the brim, despite its 1.75 quart name. But if you want to boil water faster its best to only put in as much as you actually need for a meal or quick cup of tea or coffee.**



# *Primitive CharCattail: Nature's CharCloth*

By David "Mitch" Mitchell  
Photos by Mike Belleville



**I**n a Self Reliance situation, fire is incredibly important as it provides warmth, disinfection of water, container making, tool making, food cooking and preservation, signaling etc. Being able to make fire as easily as possible is the name of the game. Primitive methods like bowdrill and handdrill work well, but their downside is a large expenditure of calories and time producing the set, and then using the set to produce an ember, which is not always guaranteed to work.

The ability to use Charcloth gives you almost an instant ember when it is ignited by a spark saving you the calories needed to make your "Next Fire". Remember Charcloth is made from 100% cotton cloth, which is a natural product from a plant source. Here's the first dilemma - usually the only 100% cotton you have with you is your clothes! We will source our "cotton" from another plant commonly found in the woodlands, cattail. A metal container is used to starve the cotton of oxygen during combustion, charring but not burning the material. Here's the second dilemma - if you have a metal

container with you it is most likely holding your water. Not everyone thinks ahead and carries a little metal container loaded with cloth on them at all times to make Charcloth, but even if they did they would run out of cloth in no time. So what is the solution? Primitively charred cattail!

The process is simple, apply heat to the seed head and starve it of oxygen to prevent combustion and cause charring.

## **To Get Started!**

Dig a Small Hole Beside your Fire.



Place the Buffed Out Cattail Fluff in the Hole.



Mitch is an Instructor at The Pathfinder School, a Graduate of the First Northeast Advanced Class, and Certified in Phase I and Phase II of The Pathfinder System. You can find Mitch on his YouTube channel NativeSurvival and his Website <http://nativesurvival.com/>





Lightly Cover it.



Mark the Spot with a Small Rock.



Move your Fire Over the Buried Tinder.



Now it's a waiting game, or rather a multi-tasking game! You're free to check your traps, gather edibles, make cordage, and work on other projects. The amount of time depends on how dense your

cattail seed head is, how deep you buried it, how hot your fire is, quantity of seed head buried, how much you teased it, etc. Rest assured somewhere between fifteen minutes and an hour your cattail has charred enough to catch a spark, and turned into CharCattail!

### The Unveiling!

Move your Fire Back to its Original Position, Uncover the Cattail.



The CharCattail Finished.



Flint and Steel Ignition!





Flint and Knife Ignition!



Blowing Tinder Bundle into Flame.



Success!



CharCattail Ember.



Place in a Tinder Bundle, this one is Raw Cattail and Birch Bark.



By owning this skill of producing primitive CharCattail, you will make your “Next Fire” quicker, easier, and with less calories spent! This also brings up an important concept in Self Reliance I use... Primitive Mimics.

Primitive Mimics are when you devise a way to replace a modern item with a natural primitively made item. Case in point, CharCattail is a Primitive Mimic of CharCloth. By learning and mastering Primitive Mimics you will be less reliant on modern gear as you can make primitive gear in the field that replaces it and serves the same function!

Now get out there and make the Primitive Mimic of CharCloth.....CharCattail!!





# *Hasty Assessments for Medical Emergencies*

By Kelly Martin

**T**he most critical tool an EMT has in his mental toolbox is the ability to discern the major components of a medical emergency.

There is a common misconception in place concerning the skill set of the Emergency Healthcare Provider. Folks see advanced first aid as a lifesaving element unto itself with the skills of the provider as the most crucial element of the patient's survival. While the skills of the EMT do play into the well being of the injured, the reality is mobility and speed play into care just as much, if not more, than advanced first aid in general.

First aid is just that. First... aid. The EMT ultimately shows up to plug holes, open airways, and generally "pack up" an injured person to expedite the trip to an advanced medical facility. Without secondary aid coming in right behind it, the EMT can do very little to sustain life for a prolonged period. Like the Mason and the Concrete Finisher lay groundwork for a new home, the EMT can build a foundation to hospital care. Just as our new home needs the Framing Carpenter for the next step, our patient needs a hospital as fast as the context will allow. This writing will cover the basics of hasty scene and patient assessment as an EMT is trained to see it, and how a layperson can start the process or perhaps even step into the role of the EMS provider with an organized assessment in order to provide primary care to the injured.

All EMT's memorize a hasty "on-scene assessment" process. I've known and used this process many times in my active EMS years. At the end of this article I've included a rhyme I used during my initial phase of training. It helped me remember what came next. I encourage you to memorize it as well.

The first and most important thing is to get the ball rolling by calling 911 and describing the emergency to the dispatcher. A fast transition from first aid to secondary care is a critical aspect of



**Looking for the Mechanism of Injury can lead you to providing proper care for the injured. What do you think might have happened here?**

survivability. Fast response times save lives. If you have no access to communications, begin this hasty assessment process while considering possibilities for follow-up care in your background thought process. Let's get started!

## **BSI**

BSI, or body substance isolation, is simply a barrier between the care provider and the injured to prevent the transmission of blood borne pathogens. In formal EMS, this is applied in route to the call. It can consist of nothing more than gloves, but can climb to almost ridiculous proportions depending on the nature of the call as well as your EMS organization's protocols.

In the sticks, you will most likely not have access to proper BSI protection. In this situation, I recommend proceeding with care without this safeguard for two reasons. First, you will most likely have a personal connection with the injured person and be aware of any communicable dangers. Secondly, you must consider the time frame. In our example EMS is not readily available and formal hospital care may be a long way off, so immediate aggressive care of the injured is advisable for both the emotional and physical needs of the injured. In short, I'm hard pressed to recommend watching a child bleed to death because you have no gloves in

**Kelly Martin is a concrete finisher that resides in the state of Pennsylvania. He enjoys all aspects of the outdoors, as well as firearms and similar pursuits. Kelly was active for about three years as an EMT-B and has recently recertified after several years of inactivity in the field. He is married with four children.**





**You find this child passed out in a confined space in a playground. Look at the clues and form a plan of action for care. Use the hasty assessment process.**

your pack.

### Scene Safety

In formal EMS, EMT's are not permitted to approach an unsafe scene. Police and Firefighters are tasked with scene safety, and EMS starts the medical machine only after the scene is safe. The logic is simple: If the EMT's get hurt, who provides the medical care?

In truth and practice, scene safety is never perfect. I can recall vehicle accidents where I was treating patients in smashed up cars that were not entirely stable. A good EMT I knew personally died during an Ambulance call. I was not with him when it happened. It's part of the nature of EMS.

In the wilderness, the scene is rarely safe. Once again, I must recommend moving forward with the hasty assessment and pushing through "doable danger". Sometimes, the scene can be made safer; however when you are the lone care provider the process has even greater inherent flaws. If you refuse to risk your own safety, the injured will not receive care. Obviously one should not rush into certain

death, but I have enough faith in the person of action to believe they could feel through this aspect of the hasty assessment and make a good call.

### Mechanism of Injury

I think this term is pretty stupid. It's a five dollar phrase to the fifty cent question. Simply ask "what happened?" Presto, you have the mechanism of injury! If the patient is not coherent or out cold, you need to play the part of a detective and try to piece it together yourself. This way, you can put together a proper plan of action for care. Most of the time in the case of trauma the mechanism of injury pops right out at you. Assess what happened and move on quickly.

### Number of Patients

How many people are hurt? Now move on quickly.



**Here my Son simulates a clean, deep cut on his hand or wrist. A person may guard the injury when in pain and fear. Consider this factor while formulating a plan to control blood loss.**





You find a boy passed out under a bicycle bleeding from his mouth and ears. You feel a deformity, but it's concealed by his clothing. Pulse is thready, and breathing is shallow but consistent. He does not respond to verbal stimuli. Use the hasty assessment process to get a plan of action. Treat the most important factors first.

### **Request Additional Help if Needed**

In formal EMS communication is epic. There are radios, phones, internet, pagers, and even personal cells. The EMT will arrive on scene and quickly figure out if more help is needed. If so, a call is made and the hasty assessment moves forward. Remember, rapid transport to advanced care is the goal- keep it moving.

In the wilderness requesting help is difficult and sometimes impossible. Consider the possibilities based on available means and move on quickly.

### **Considering C-spine Stabilization**

Now your hands get bloody. Prior to this step, your hasty assessment was an overlapping thought process that literally took just moments to come together. Now it's hands on! So far you've considered BSI, scene safety, what actually happened, the number of patients, and

communicating with any available help.

A lot of EMS work is preventing further injury. A human spinal cord cannot yet be properly repaired by medicine, so if it's damaged it will paralyze or kill the patient. The EMT stabilizes the neck area of the spine by holding the head in-line to prevent movement. This way, if the neck has been broken, the bones will not move and damage the spinal cord causing further injury. This practice is almost universally applied in formal EMS whenever there is a possible neck injury. It's not rocket science, but consider that if the neck is broken, you are holding the life of the injured person in your hands. Formal training is recommended before applying this skill. Consider C-spine management and move on quickly.

### **General Impression**

Now get your general impression. This can





**If the patient has a possible broken neck, consider C-spine management as a part of your plan of action for care. Basically, just hold the head in-line with the spine. If you are asking questions, tell the patient to answer yes or no without shaking their head.**

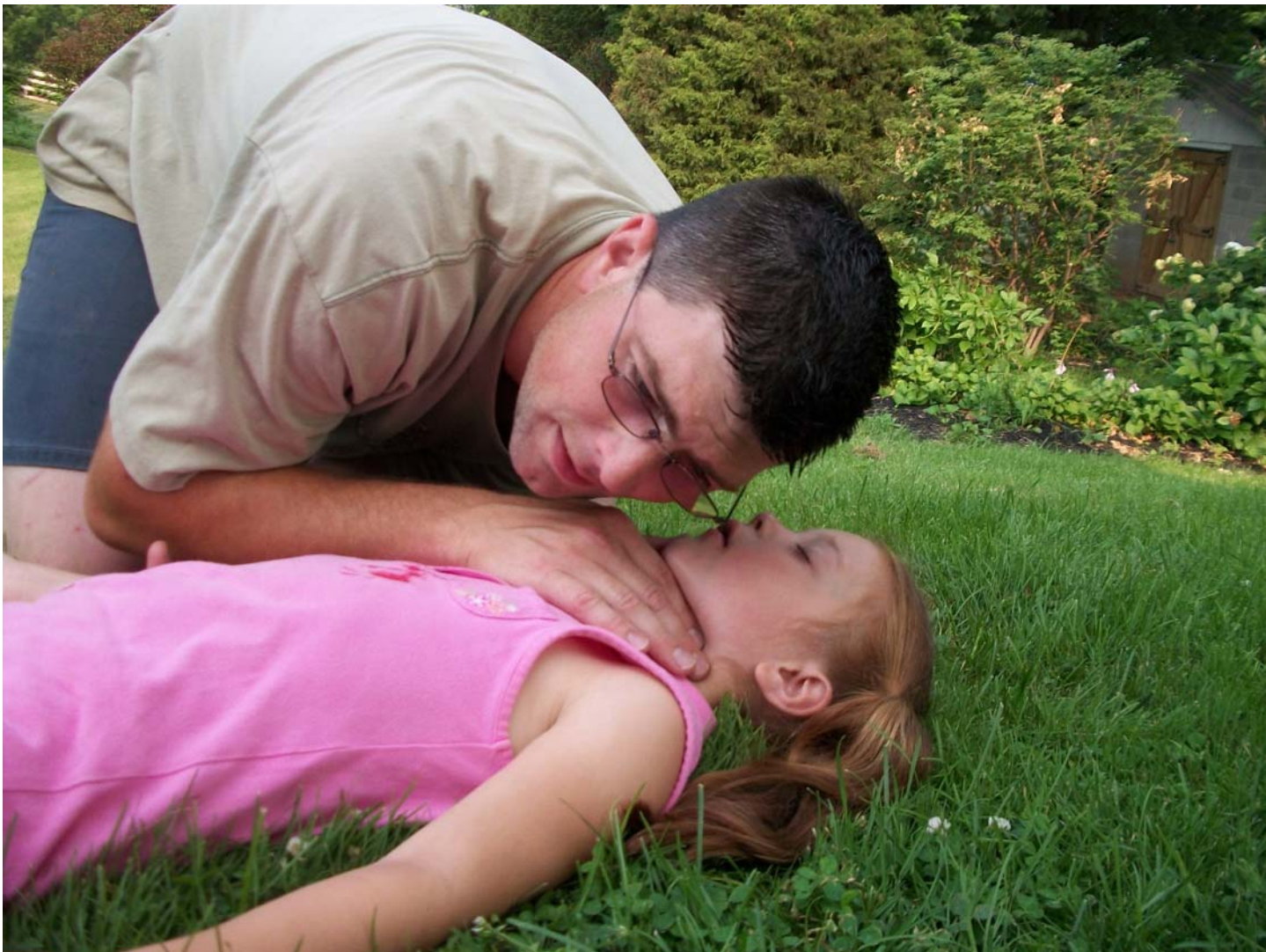
be a quick visual once over, or a hasty physical inspection. As a committed Christian, I am very aware of the privacy of the human body and have great respect for the image it's created in. I also realize privacy cannot be considered in medical emergencies. Safely and quickly cut away clothing, loosen belts, remove and undo underwear or any other barriers that obscure the injury. Inspect the damage and formulate a plan for wound management.

In a wilderness scenario, consider trying to save valuable “cover” resources like pants and shirts, as well as mobility items like shoes. You may need this stuff to self extract, so if you have spare seconds, try not to destroy these items to get your general impression. Move on quickly.

### **Chief Complaint, Responsiveness, and Level of Consciousness**

Now, verbally ask what is hurting. What kind of pain? Is it local, or does it radiate? Is it sharp or dull? Scale it from 1 to 10 for intensity, and provide care accordingly. Further, gauge the responsiveness of the patient by the answers. Are they aware and making sense? Is there slurred speech, are they incoherent, or are they totally lucid? What is the level of consciousness? Are they responsive to verbal command? If not, you have to wake them up! Consider painful stimuli by using a technique called the sternal rub. I've used this approach on one occasion with a child involved in a side impact car crash. He passed out during treatment and failed to respond to verbal stimuli (I yelled at him). After I received no response, I caused him pain by raking my knuckle into his sternum. To my pleasant surprise he came around, grimaced and cried, and I was able to continue my prior treatment pattern. Later, I was told he survived. Access the important factors,





**Look, listen, and feel for an open airway, breathing, and circulation (pulse) before considering CPR.**

provide proper care, and move on quickly.

### **Airway, Breathing, and Circulation- ABC's**

Wait, shouldn't this be first?

Remember that BSI, scene safety, mechanism of injury, patient count, and calling for help take only the time that you need to reach the patient physically, just seconds. C-spine management is the first hands on aspect of care. A second later, you access the level of consciousness. All of this naturally flows into looking, listening, and feeling for the injured persons ABC's. Really, up until now, the hasty assessment is a monolithic process that pretty much all happens at once.

Airway management refers to clearing and maintaining the throat for oxygen flow. Breathing is obvious, and circulation refers to the heart's ability to push blood through the body. Learn CPR, and consider health care provider CPR. Layperson CPR dumbs down the concepts quite a bit. CPR protocols

change from year to year, but I believe layperson CPR is now just chest compressions with no rescue breathing at all. Note that CPR is physically demanding. I have only performed complete CPR once in my life, and I broke two of the man's ribs in the process. He died regardless of our efforts.

At this point the EMT would consider oxygen therapy, but this step is not applicable outside of a formal EMS call.

### **Control Bleeding**

When I was first considering involvement in EMS I had an intense interest in tourniquets. After formal training and experience, I can tell you a tourniquet is almost never used to control bleeding. It's a last ditch effort in a desperate situation that often does a lot of harm by completely starving the damaged limb of oxygen and killing it completely. I was warned to be prepared to defend myself to an ER doctor in case I ever decided to use one. I never





**Use your hands to palpate, or feel, the injury. Assess the signs and symptoms and treat accordingly.**

did. The only case I would use this as the go-to bleeding control would be traumatic amputation (torn off limb) or perhaps a fast moving mass casualty incident. Tourniquets have their place, but it's a small one.

Use direct pressure, bulky dressings, and restrictor bands to stop bleeding. If your skill set permits, check pulse points on the restricted limb and

make sure the blood is still pumping through the appendage. This way you can be sure you aren't starving the limb of oxygen.

For example, a year ago I treated my own ten year old son for an accidental self inflicted stab wound directly above his knee. It bled profusely and eventually required internal stitching. Simple direct pressure and a bulky dressing stopped gross blood



loss a few seconds into my hasty assessment. Consider methods to control bleeding and move on quickly.

### Assess the Skin Condition

Is the skin pale, blue, or waxy? Skin condition can give the trained eye possible clues to problems. An EMT may also consider applying and releasing pressure on nail beds to time perfusion for further detail. Move on quickly.

### Identify Priorities

Now choose the most pressing needs and treat accordingly. Is the airway clear? Is the patient breathing? Gross blood loss? Compound deformity in the leg? Penetration wound to the chest? Pick your poison and treat it. After you have stabilized the injury bring your background thoughts to the front and consider getting help, self extraction, additional resources, and so forth.

### Transport Decision

In EMS we used a lot of acronyms and cute little sayings to help us remember stuff. DECAP-BTLS, OPQRST, My Baby Looks Hot Tonight, SAMPLE, CPR, PE, and so on. I remember one fellow that actually wrote “M-T” on empty O2 bottles. I don’t know if he was joking or what.

The saying we used at the end of our hasty assessment was “Load n Go or Stay n Play.” We were asking ourselves if we had enough time to burn seconds on-scene, or if we should blast through the process quicker to get the patient to secondary care faster.

In the sticks, this is a gut wrenching decision. The truth is fast advanced care is of paramount importance for the life threatening injury. First aid will not cut the mustard for very long. If the injured person is completely immobile, you must consider stabilizing things as best as you can and go for help solo. If you must leave the patient, mark your GPS location and leave sign and contrast at the site in order to re-locate the spot upon re-entry with additional medical help in tow. Also leave resources for the injured person. Finally, if the injured person is out cold, leave a quick note saying something like this: “Went for help. Date and Time. Approximate ETA is XXX.” This way when your patient comes to, they have information and resources. For serious non-life threatening injury consider refining available resources into a drag stretcher, crutch,

splint, and so forth for self-extraction. In any case, make your decision, monitor the patient, and continue care during extraction.

This completes the hasty assessment process.

### My Silly Rhyme.

Memorize this rhyme to help you through your hasty assessment process. I've Capitalized the syllables that need accented to make the rhyme work.

- **BSI,**
- **Safe Scene,**
- **Mechanism Injury.**
- **Patients,**
- **Request help if necessary.**
- **Stabilize C-SPINE,**
- **General Impression.**
- **Chief complaint, responsiveness, level of Consciousness,**
- **Airway, Breathing, Assess The Circulation,**
- **Initiate appropriate oxygen Therapy,**
- **Assure Ventilation.**
- **Con-Trol bleeding,**
- **Pulse.**
- **Assess the skin condition.**
- **Identify Priorities,**
- **Transport Decision.**

This entire article was written from memory, so bear in mind current protocols may change this process up a bit. This will however get the job done, no doubt.

### Conclusion

Reading about first aid is great, but it's not advisable to get your medical training from a magazine. Consider going to your local ambulance station and requesting information on becoming an EMT. If time frame is an issue, the First Responder course offers a more limited scope of practice and therefore is significantly shorter. The hasty assessment process was created and intended for use by trained folks and formal training is readily available in most parts of the country. You just need to seek it out.

Use the hasty assessment process to quickly shake out the medical emergency. It's been used in formal EMS for a very long time, and it's saved many lives. Take care out there!









# *Non-Seasonal Edibles*

By David “Mitch” Mitchell  
Photos by Kristal Mitchell



**Photo 1: Eastern White Pine Sapling**



**Photo 2: Cluster of Twig Nutlets**

**K**nowing seasonal edibles like berries, fruits, nuts, seeds, flowers and leaves are great, as they are your seasonal gluts that help you pack on the weight and store away precious calories and vitamins. The question becomes, what do you forage in-between your harvest, in winter, or during a weather cycle that negatively impacts your foraging? Non-seasonal edibles is the answer.

That's what carries you day-to-day, season-to-season, and can be relied on as you hunt and gather other resources. They are always present regardless of what time of year it is or the current weather pattern. This is your “go-to” forage technique!

Many plants have non-seasonal edible roots. In the off-season however, they can be under several feet of snow, more difficult to locate, or hard to identify as only the root might exist. You need to choose a plant that is easily identifiable in all climates, quite common, grows in groups so you can save calories when harvesting, and whose edibles are

easily prepared. With this in mind, I'm going to focus on the pine tree. (See Photo 1)

Pine has nine edibles, five of which are non-seasonal. It is easily identified at all times and seasons, very common, prefers to grow in groups, and most of its edibles can be eaten raw! This ability to eat “scout style” or on the move is a huge benefit that can be utilized while you hunt for game, gather resources, set and check your trap line, build a shelter, or while on the move. Eating raw also saves you calories without the need to build a fire.



**Photo 3: Gathered Twig Nutlets**

Mitch is an Instructor at The Pathfinder School, a Graduate of the First Northeast Advanced Class, and Certified in Phase I and Phase II of The Pathfinder System. You can find Mitch on his YouTube channel NativeSurvival and his Website <http://nativesurvival.com/>





**Photo 4: Closeup of Twig Color Change**

#### **List of Pine's Non-Seasonal Edibles:**

- Twig Nutlets (Male Cones)
- Twigs
- Needles
- Inner-Bark
- Sap

#### **List of Pine's Seasonal Edibles:**

- Seeds (In Female Cones)
- Blossom
- Pollen
- Immature Cones (Female)

#### **Twig Nutlets**

This is one of my favorites, twig nutlets can be found at the end of twigs as a small cluster of nuts. They're actually the male cones of the pine and are easily harvested, and very prolific as each branch



**Photo 5: Twigs Gathered and Chopped**



**Photo 6: Pine Needles Slow Simmering**

can have dozens of clusters! Collect them and eat them as is, while you're at it fill up a pocket for constant calories throughout your day. In camp add them to your bannock or mash them into cakes or loafs. (See Photos 2 & 3)

#### **Twigs**

Twigs are another great edible that are easily collected. A twig's color will change from the dark brown of the branch to an amber or khaki-like tint the last six inches or so. This lighter section found at the end of the twig is the edible portion. As you might have already guessed, there is a huge abundance of twigs on each tree or sapling! Eat them raw as is, chop them up as a meat rub or add as an ingredient to a meal to impart some flavor and vitamins. Again your options are only limited to your imagination. (See Photos 4 & 5)

#### **Needles**

Needles are the easiest part to identify on a pine as they are the Evergreen leaves. They must be infused in a liquid-like water, maple sap, birch sap etc.. until they lose some of their color. This usually takes about ten to fifteen minutes. This will extract the vitamins, minerals and their food value.

Although many books including Peterson's Edible Wild Plants states that "all pines are edible" (pg.166), some sources state that the Western United States' Ponderosa pine needles can cause abortions when ingested. Always positively identify your edibles! This is the only pine that has garnered this



reputation.

When I disinfect a mug of water I always throw in a twig with their needles still attached. This makes it taste better and it is better for me. I'm drinking the water for hydration, why not add some vitamins and make my water healthier? Two is one and one is none. (See Photo 6)

### Inner-Bark

Inner bark is affectionately known as backwoodsman's gum. In order to gather it start by peeling back the outer bark. The inner bark will adhere to the inside of the outer bark. Now it is easily separated with a fingernail. This is a fantastic edible that does a few things; first you feel like you're getting somewhere with your food intake, as this is a bit more substantial and slower to digest than the previous edibles. Second, is the slowing down and relaxation that comes over you as your hunger takes a back seat. Suddenly you can hear distant sounds from the forest, your thoughts are calmer and more decisive as your ability to think expands with the quick energy of the sugar content in the inner bark and its noted stimulant effects. Whenever I feel the need to "slow down" in the woods I grab some backwoodsman's gum, especially before a stalk when I want to move in harmony with the woods. (See Photos 7 & 8)

### Sap

Sap is a hit or miss edible for me. I prefer my sap dried, crusty, and crystallized like a cough drop. Sometimes you can find flowing soft sap that looks like an icicle, clear and pure, however I find it a bit too strong for my preference. A multi-purpose edible as it can be used to produce pine resin or



**Photo 8: Gathered and Separated Inner-Bark**

epoxy in addition to providing a prolonged and slow sustenance while you work on projects. A pine cough drop keeps you peppy while you repair kit, carve or burn out containers or build shelters. (See Photo 9)

I hope this article helps you look at pine trees in a new light. They are truly constant providers of multiple edibles regardless of the time of year. It is imperative to realize the potential for non-seasonal edibles in your arsenal of foraging techniques. This concept is a core fundamental to successful sustenance from edibles, and I encourage you to locate a pine to get started in this ancient facet of self reliance!



**Photo 9: Hardened Sap Gathered**



**Photo 7: Exposed Inner Bark**

Due to editorial errors, this article has been reprinted from *Self Reliance Illustrated* Issue 3. Our apologies to the Mr. Mitchell. ~ Editors



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# Downtime Bushpipe

By Jesse Herb

**W**e often find ourselves with a little downtime while we are camping, hiking, or off wandering the woods. Let's say you're in a survival situation and you have a shelter built, fire lit, got food and water, and find yourself with a couple hours left in the day. Now what?

Plenty of resources in the survival field claim the best thing for the psyche is to stay busy. May I suggest you burn that time crafting a bushpipe? Now why would anyone spend time crafting a pipe? Here are a few reasons. First, it would keep your mind busy. Second, there are several herbs out there you can smoke solely for medicinal purposes. For example, if you happen to be a smoker you could ease nicotine withdraw. You could counter anxiety or nervousness with plants you possibly have been passing by. Got a cough that's been nagging you like a bad case of gnats? Puffing the right herbs will not only counter the cough, but also the gnats. Lastly, you may want to construct one just for the fun of it.

Before we get started here is a brief disclaimer-- no one is advocating smoking addiction or drug abuse. I am merely providing ideas to increase the knowledge base of self-reliance. Consider the Native Americans. Why did they puff that iconic peace pipe? Of course they smoked it for ceremonies and spiritual purposes but let us not



**Photo 2: Dry Yellow Dock stem. Picture shows it is hollow.**

forget the practical reasons-- to take care of themselves. This article will follow their lead in giving the reader practical ideas, not only in the construction of the bushpipe, but also what to smoke in it.

## **Step one: Gathering Materials. (See Photo 1)**

The bowl of the pipe should be made with wood that is dried out and hard. Fresh (green) wood tends to split in the production process if the walls of the bowl are too thin. There are plenty of different types of wood you can use just make sure it is hardwood. Oak, Walnut, Hickory, Beech, Cherry, and Maple all work well. While each of these may differ in quality they are the ones you'd most likely run into. The size of the bowl can vary, an easy way to measure the circumference is to wrap your hand around it thumb to index finger. For the length, two and one half to three fingers stacked should be long enough. The bigger the bowl the more you will have to labor boring the hardwood.

The stem of the pipe can be made from the same wood. Look for green saplings near where you found the wood for the bowl. Using green wood for the stem makes it easier to split in half and hollow out. You can also find hollow materials such as dry Yellow Dock stem. (See Photo 2) Other options



**Photo 1: Gathered materials, Maple bowl and various twigs.**

Jesse Herb is a husband, father of three, musician, Sunday school teacher, and outdoorsman. His interests in the outdoors include: minimalist techniques, herbalism and mycology (mushrooms), hunting, and fishing. Jesse lives in West Virginia where he is always looking for opportunities to share knowledge with the next generation of young survivalists.





**Photo 3: Maple bowl. Hollowed out the tobacco chamber with Mini Leatherman.**

would include shrubs or plants that have a very soft center (pith) such as Sumac (the non poisonous variety) to bore through without the need for splitting the stem in half. I usually use the length of my index finger to measure the length for the stem. The longer the stem is the cooler the smoke because of the distance it travels getting to the lip (mouthpiece) of the pipe. The diameter of the stem can be measured using your pinky finger.

### **Step Two: Preparing the Bowl. (See Photo 3)**

Once you have wood for your bowl and stem you can start boring what's called the tobacco chamber. I suggest you start with a flat surface cutting the ends with a camp saw, wire or survival saw, or flatten the surface with a knife. In the illustration I used a basic camp saw to give myself level ends and a small, very sharp knife to bore. I would say it is possible to bore the chamber with a hand or bow drill but the drill tends to kick-out during the process especially while working with wood the shape of the bowl. Make sure the tobacco chamber is deep enough to meet the draft hole you will be boring next. The chamber can taper down to a point if you find the boring is difficult with the dry



**Photo 4: Draft hole in bowl. Used Mini Leatherman to hollow out.**



**Photo 5: Split stem in half, shows the removal of core.**

wood. This step takes some time, be cautious not to remove too much wood making the walls of the chamber too thin. You can use the knife blade or a finger as a depth gauge while boring.

The draft hole shouldn't take as much time. Before beginning make sure that you compare the size of the stem with the draft hole you will be drilling. Keep the diameter of the draft hole smaller than the stem you will be inserting into the draft hole. (See Photo 4)

### **Step Three: Preparing the Stem (See Photo 5)**

The stem I used was Maple that I cut from a sapling near the wood I used for the bowl. If the bushpipe you are constructing will be something you plan to keep, using dry wood would be best. One problem in keeping the bushpipe is the stem usually is the first to break or malfunction while being carried. I find that it is much easier to throw the bowl in the backpack and make a quick stem if you want to smoke.

Prepare the stem by cutting it in half then scraping or cutting the center out. Once both halves are done, put it together, wrap your hand around it, and blow through it. If you find it is easy you are ready to put the stem back together. If it is a chore to blow through you will need to hollow out more of the center.

### **Step Four: Wrapping and Attaching the Stem (See Photo 6)**

There are various ways to wrap the halves of the stem back together. I used dental floss that I carry in my survival kit. Other wrapping ideas would include fishing line, cloth, cordage from plants, vines, roots, etc. Use whatever your specific environment will provide, or what you happen to have on you. Fasten it together with a knot your material will allow you to tie. I used a basic





**Photo 6: Wrapped stem with dental floss.**

whipping method used to tie the ends of rope. Depending how precise your initial cut was the halves should piece together with a minimal amount of wrapping. Again this step could be avoided by finding twigs already hollow, or a center that can be bored easily without splitting.

Once the wrapping is done, take the end you want to insert into the bowl and sharpen it like a pencil to fit the draft hole. Push through, twist, and make adjustments to produce a snug fit into the bowl. You can also use your wrapping material to make a gasket or increase the diameter of the stem if too much wood was removed while penciling the stem.

#### **Step Five: Final Touches (See Photos 7 & 8)**

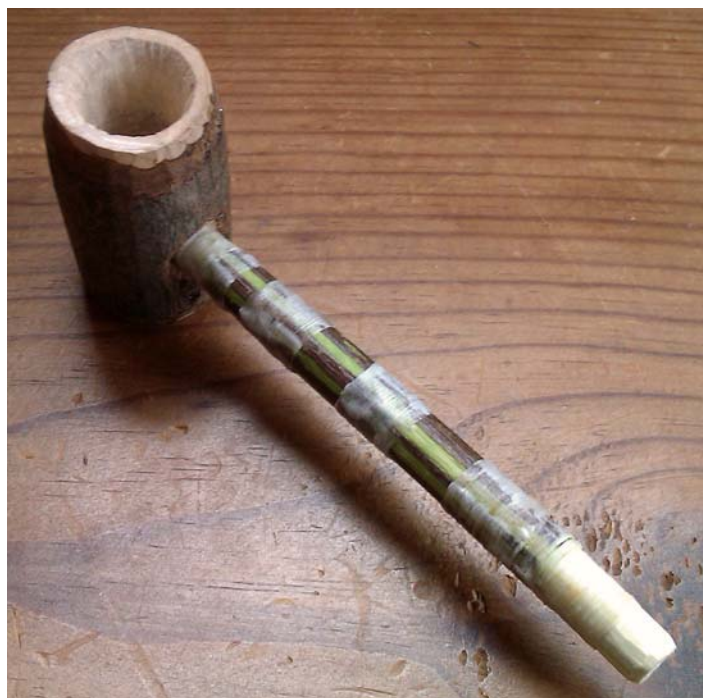
To finish the project you can whittle a lip, shape the bottom of the bowl to stand the pipe upright, apply more wrapping, or make depth adjustments to the tobacco chamber or draft hole. Now you are ready to reap the benefits of your labor by packing the chamber and lighting away.

#### **What to smoke in your bushpipe:**

Most of the plants listed are best smoked when green and fresh. Allowing them to dry out makes smoking them harsh. You would never want to just throw plants on a fire and inhale the smoke because you would not know what else you are inhaling from the fire. Making a bushpipe is an adequate and fast way to obtain the medicinal properties from plants, but you should always get what you need from the plants by any means necessary (tea, infusion, decoction) if you find yourself in a true survival situation.

Research in smoking medicinal herbs needs to be developed more. There are very few books that list the benefits from smoking wild plants and even fewer books from experts in the field. Here are a list of common plants and how they are used.

**Mullein-** A very light, non-toxic, and very gentle smoke. It will soothe inflamed or infected lungs; it is an expectorant and aids the breakup of congestion. The leaves are high in mucilage, used for inflamed mucous membranes. It also suppresses



**Photo 7: Two different views of the finished product.**

smoker's cough.

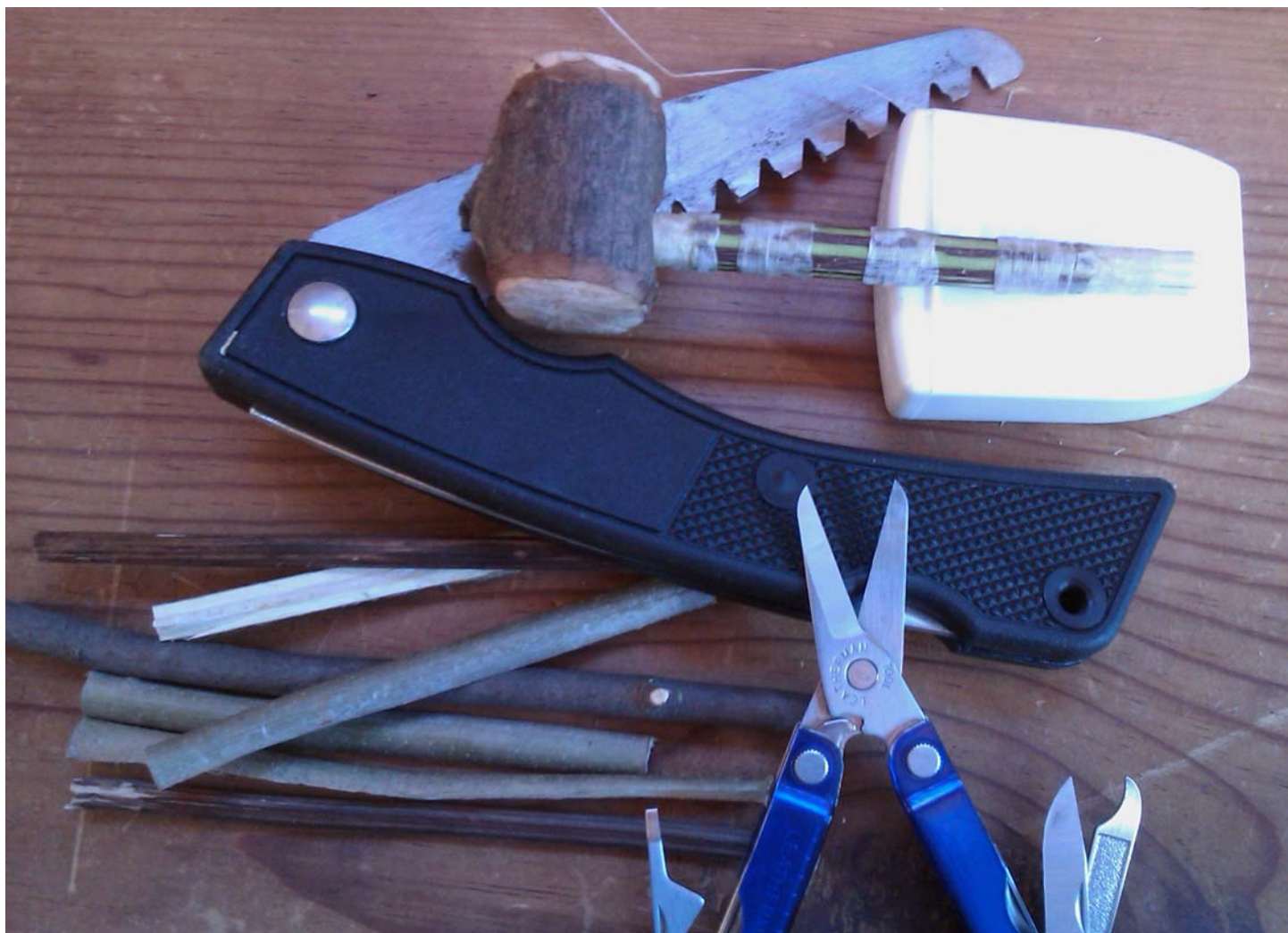
**Colt's Foot-** A rough smoke even with moist leaves. Promotes coughing, good for a lung cleansing. Can be mixed with other herbs. Do not over do it. You want the cough to be effective in moving mucous; you don't want to hack your brains out!

**St. John's Wort-** Studied by the Library of Medicine for smoking cessation. Used to aid in depression or anxiety. Proven to aid minor depression, a Tricyclic Antidepressant.

**Skullcap-** A bit harsh as a smoke, used by Native Americans. A sedative, reduces tension, promotes relaxation and sleep.

**Mints-** Various mints can be used to flavor your smoking mixture, Peppermint and Spearmint both are found throughout and Eastern and Central US. Just put a small portion in the pipe, the smoke





**Photo 9: Finished product with tools used.**

can be harsh. Peppermint contains 40% menthol; Spearmint does not contain a high level 0.5%.

**Blackberry-** Leaves of Raspberry can also be used. Both are an astringent, leaves are a gentle smoke.

**Sage-** Can be used for Hemoptysis, relief for Asthma, and laryngitis. It can be smoked dry.

**Insect repellent-** Smoke is still used widely in repelling insects around the world. A study in Papua New Guinea revealed burning local leaves repelled 57 to 75% of the mosquitoes. While it would not be a complete insect fix, smoking the bushpipe would give you a much needed break from a pesky cloud of gnats.

This is a short list that will introduce the survivalist to ideas on how to care for himself and increase awareness on medicinal plants. There is

something relaxing about firing up a pipe and listening to the squirrels bark, watching the sun set, and hearing the wind sift through the pines. And if you would happen to be in a survival situation what better way to be found then by sitting back enjoying a bushpipe.



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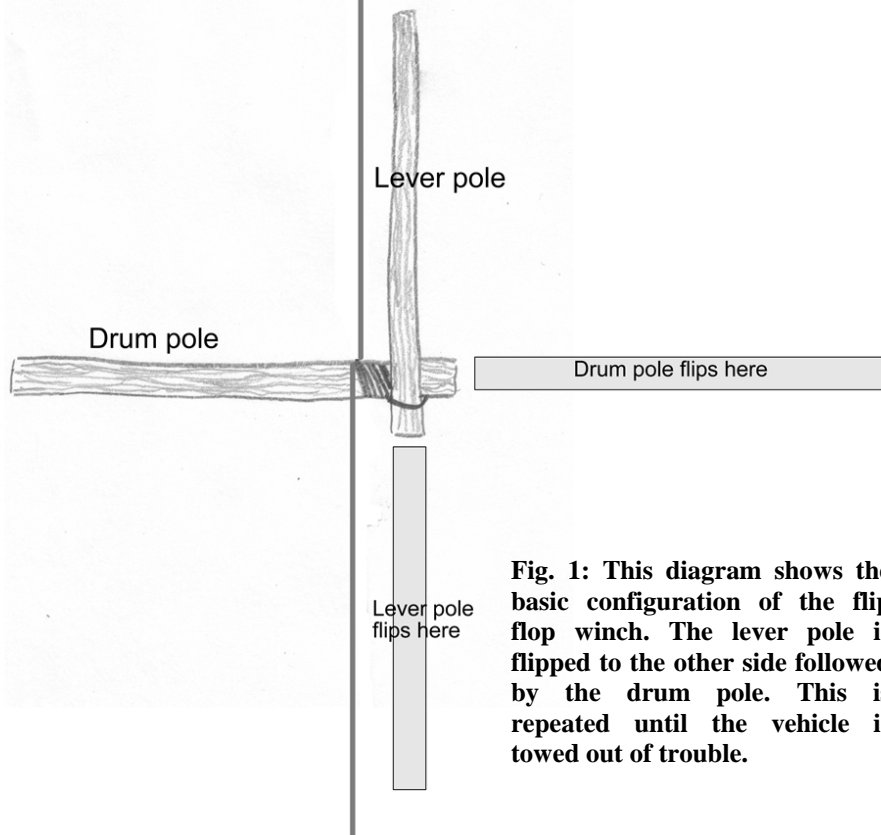




# The Flip Flop Winch

By Mike Lummio

## Aerial View



**Fig. 1:** This diagram shows the basic configuration of the flip flop winch. The lever pole is flipped to the other side followed by the drum pole. This is repeated until the vehicle is towed out of trouble.

**M**any survival situations begin with a stuck vehicle. Therefore, having the ability and know-how to pull heavy machines out of ditches, mud, and snow banks is a vital skill to have in your arsenal before heading into the backcountry. Providing there are trees in the area, this simple technique requires only a saw and some rope. It is constructed by laying two poles on the ground perpendicular to each other and fashioning the rope as described later in this article (Fig 1). This can all be done solo, but as you might imagine is even easier with two or more people. I first learned of this technique through Mors Kochanski who says the flip flop winch can even pull a house off its foundation, so a stuck vehicle is well within its capability. Pulling fallen trees out of the roadway is another common scenario where this winch can be used.

Let's discuss rope selection first. Unfortunately, commonly carried types of rope such as paracord and climbing ropes are not the best choice for this application as they have elasticity built into them. If that type is all you have and it's an emergency, you'll have to make due. However, keep in mind that if it should break under strain, the force

of the rope or branch springing back at you will be many times greater than if the material was not elastic. This can result in serious injury or worse, so be aware of the danger areas such as directly in line with the tow rope and near the drum pole. This is a very safe technique as long as you treat it with respect and use materials up to the task. Always stow the rope or strap in its own bag to keep it free of nicks, wear, and grime.

Begin by tying the rope to an anchor point. Be sure your chosen anchor is extremely stable. Dead standing trees may seem solid but can be pulled over under heavy strain, usually right on top of you. It also must be close enough to the stuck vehicle for the allotted length of rope and be in a position that will pull the vehicle to a safe location. Go around the anchor

with a round turn before tying the knot. A simple round turn takes much of the pressure off the knot and provides a more stable arrangement (Fig 2).

Cut two saplings, one slightly thicker and heavier than the other, and trim off all the branches. The heavier one will function as the drum pole, the other as the lever pole. The drum pole selection is the more critical as it has to be heavy enough to handle the torque and not be pulled sideways. The situation will dictate the size of trees needed to handle the load, and with some practice you'll know how large the poles have to be to haul the weight. When in doubt, go larger (I recommend first practicing this technique with small saplings to get the idea as it's the concept that is important to understand). Lay the drum pole 90° to the line and place the rope on top of the pole about 12" from the end. Pass a loop under

Mike Lummio is the founder and head instructor at Bushcraft Northwest. Mike was first exposed to bushcraft nearly 30 years ago and has since had the good fortune of learning traditional wilderness skills through hands-on training, his own experience, and the generosity of others. He created Bushcraft Northwest to continue this tradition and has taught these skills to both civilian and military personnel from around the United States.



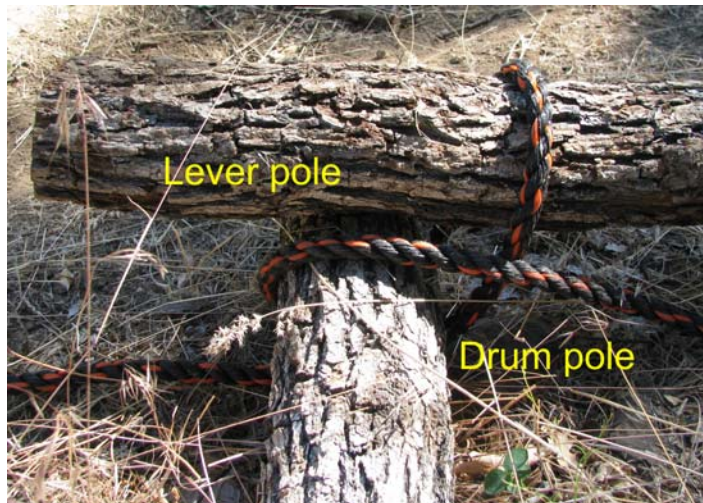


**Fig. 2:** Tie off to your anchor using a round turn before the knot. A simple round turn takes much of the strain off the knot which is crucial in this scenario.

the drum pole as shown in Figure 3. Now insert the leverage pole into the loop formed in the previous step. Tighten the line from both sides to lock the two poles together (Fig 4). The last part of the setup is to attach the loose end of the rope to the vehicle and remove the slack. I like to use a tensioning knot similar to a taut line hitch for this job. The winch is operated by first lifting the lever pole parallel to the

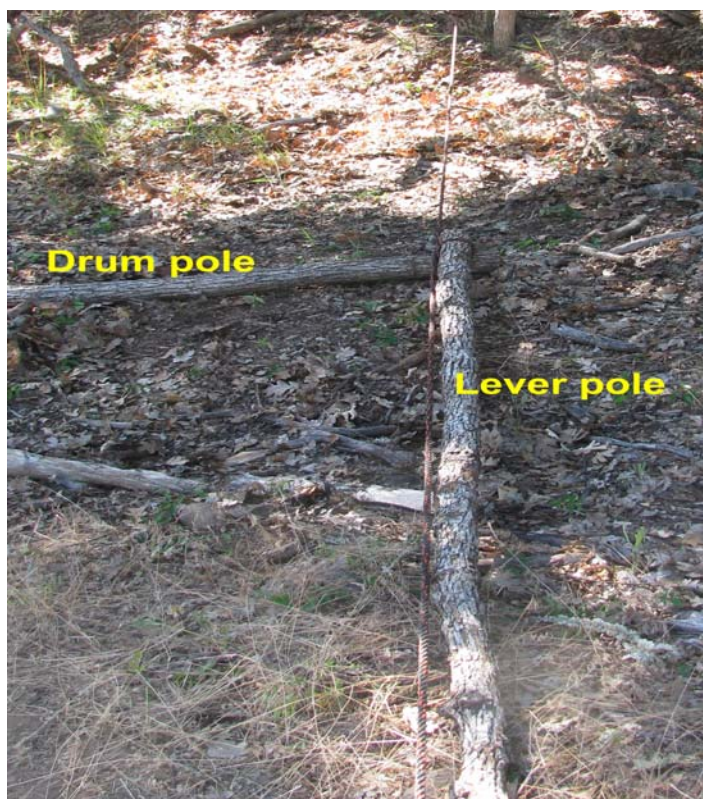


**Fig. 3:** Passing a loop under the drum pole as shown will allow the rope to cleanly spool up the drum pole.



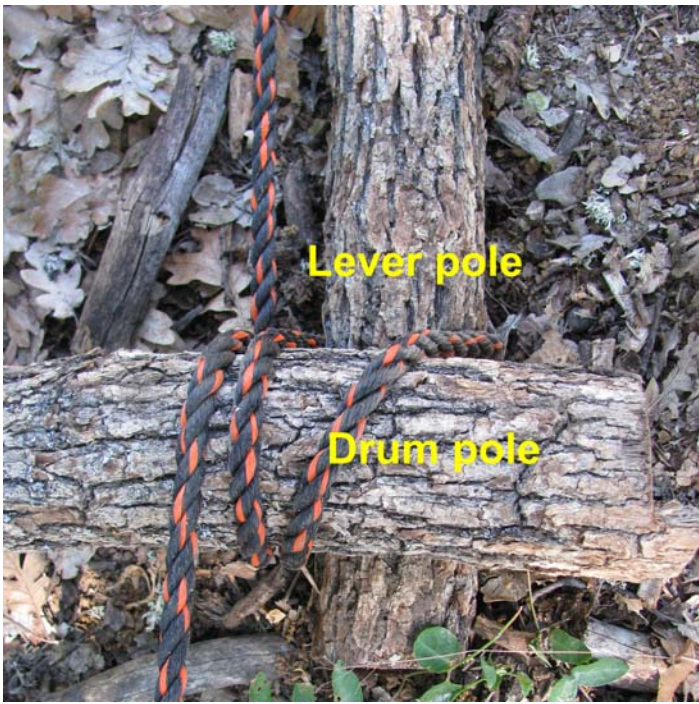
**Fig. 4:** Tighten the line from both sides to lock the two poles together.

tow line and setting it down on the other side (Fig 5). The rope will start spooling on the drum pole if you set this up properly (Fig 6). Since you can't revolve the lever any farther due to the ground, the drum pole is flipped to the other side instead (Fig 7). Pass the lever pole under the rope and repeat. Watch that the line is spooling neatly to minimize sideways torque on the drum pole (Fig 8). Keep in mind that the winch will also be pulled toward the anchor so be sure to leave enough ground space. Also, at some point there may be enough tension on the lever to



**Fig. 5:** The lever pole is rotated or "flipped" 180 degrees parallel to the tow line.





**Fig. 6:** Flipping the lever pole will cause the rope to spool up the drum pole.

flip it backwards like a catapult. To counteract this, tie a loop around the tow rope that can be slid over the end of the lever pole to hold it in place (Fig 9).

As a side note, it is essential to carry a Swede saw, or at least the blade, at all times since there are



**Fig. 7:** The drum pole is now flipped 180 degrees which resets the winch. The lever pole is then passed under the rope and flipped back to the other side, then the drum pole is flipped, etc.



**Fig. 8:** If set up properly, the rope will spool neatly towards the top of the drum pole.

occasions when large diameter logs must be cut. A long blade like this will not only provide you with the poles needed for this winch, but also firewood and shelter for a fraction of the time and energy required with a folding saw or axe. Providing you have the blade, the frame can be easily made from a small sapling. I always carry a 24" blade around my waist in our custom BCNW leather belt as this item is awkward to pack due to its length and sharp teeth. There are also lightweight takedown saws complete with frame which are easily stowed in a vehicle.

The best way to get out of a survival situation is to avoid it entirely. With a few tools and the proper knowledge, you'll be able to make this winch, tow your vehicle out of a bad spot, and be back on your way.



**Fig. 9:** As the pressure builds on the winch and rope, there will be enough force present to spring the lever pole up like a catapult. To prevent this, tie a loop on the tow rope and slide it over the end of the lever pole.





# Make Your Own Bug Out Bag

By Scott Wickham Jr.



The author's current Bug Out Bag (BOB) in his Bug Out Vehicle (BOV).

The Bug Out Bag (BOB). An item of quite some popularity on the internet and forums world wide. There are a million ways to make a BOB for yourself and what should be in that bag is up to you. I will give some guide lines in this article and use some great items sent to us for review. The BOB is something that can be so customized yet every BOB should have the same basic items in it, at least to start. Your BOB will be different from mine and anyone else's depending on climate, where it's going to stay (car, boat, airplane, on your shoulder, etc.), and personal demands



Almost any bag will get you started. There are Maxpedition bags in there, JandD rucksack, Filson, bicycle messenger bags and bags from Wal-mart. They will all work.



The contents of the SOL Personal Survival Kit. Good stuff!

(medicine, physical impairment).

Lets start with the bag itself. A good rule of thumb is that your BOB should support you for 72 hours so you need to carry enough stuff to fulfill this role. Are you the head of the household and will be traveling with children, you'll need a bigger bag. Are the kids big enough to carry their own stuff? Great, spread out the load. I think everyone should carry their own bag so if something happens, one bag isn't lost and it had EVERYTHING in it. Dad's bag got swept down stream, well that's ok, little Billy has more in his BOB, you get the picture.

To start with, just use any good quality back pack you already have. Once you start to fill it and see what you want to have with you, then consider changing sizes. If you start with a 3000 cu.in. bag, and you fill it, someone has to carry it so think small and mobile (I'll be concentrating on a BOB you will have to hike with, not something that will stay in the truck or SUV). Make sure it has a few outside pockets for organizing things for fast retrieval so if you need a bandanna to cover your face, know it's in

Scott Wickham Jr. is an apprentice knifemaker at Blind Horse Knives. In addition to knifemaking he has been writing for ten years now and has had a love for the outdoors since a young age. Scott is also the co-founder of the Fort Pitt Land Rover Group and when he is not making knives or writing can be found in his Land Rover.





Using the foil to make a cup, the striker and tinder to make fire. All in one small kit.

the zippered compartment right above your head and you can just reach up and grab it without even taking the bag off. If it has very few or no outside pockets, then you should organize it well on the inside. Consider different colored small stuff sacks for identification or at the very least, zip lock bags with contents written on the outside. My normal BOB is a Maxpedition Pygmy Condor II. It has two large water bottle holders on each side, numerous small zippered pockets, nice padding on the shoulder straps (with sternum strap). There are Molle straps sewn on for adding other small pouches if you want, a sort of rubberized bottom for durability. My favorite feature though, and why I chose this bag, is it's clam shell opening. I can set this bag down, un clip the top, and unzip it the whole way around to see exactly what's in it very quickly. This works quite well in low light situations too since I'm not trying to look down into a dark bag, it's all wide open. Capacity: 1400 cu. in. and goes for around \$90. The black BOB in the back of my Jeep is a review bag I'm testing and it's set up a little different.



I carried the PSK kit in a cargo pocket for 2 weeks. The compass cracked but didn't break and the fluid is still in there. Still works good. This piece is also a whistle.



Above: The one man emergency bivy. Made from the same material as the heat sheet just in sleeping bag form.



Above: This one is great to keep in the car or in your pocket. Would fit in a Camel Bak when mountain biking as well.

Below: It gives you quite the variety.







This worked pretty well I think I'd prefer the wipes in my BOB though.



The larger of the two heat blankets. I'd use this one for shelter building too.



Quite large.



The one man blanket. Small enough to fit into any BOB.

You've decided on a bag, now, what to put in it? I would keep the "rule of three's" in mind. Three minutes without air, 3 hours without shelter, 3 days without water, and 3 weeks without food. The air part is self explanatory but it wouldn't hurt to have a bandanna or small paper N95 dust mask with you (the N95 is the paper one from the hardware store except it has an exhaust port which helps keeps the mask in place better when you exhale as you're not trying to blow the mask off with each breath). The shelter part can be pretty easy if you are prepared. Using what was provided, we have some great products from Adventure Medical Kits' SOL line. That stands for Survive Outdoors Longer and this stuff will let you do just that. Asses your situation

first. Is it cold/hot/raining/sunny, etc. and make a shelter appropriate to that. Cold and wet? Better take the 2 person survival blanket and rig up a pup tent or lean-to shelter. Take the cord out of the survival kit and make a ridge line, throw the survival blanket over that and lash it down. Use the 1 person emergency blanket for wrapping around yourself. Try to get a fire going and set up that survival blanket in a lean-to shelter to reflect the heat from the fire back into where you are sleeping.

No time for all that or just too tired, use one of the Bivy sacks. They are a great shelter from wind, rain, and cold. Just use it like a sleeping bag to keep the heat in. Be careful not to lose heat from conduction as the cold ground will suck the heat right out of you. Layer that up with some pine branches or other natural material to keep off the ground.

Water. If you have set up your BOB to be a 72 hour bag, you should have some water with you. I have read different levels of water to consume per person per day. One liter per day, 2 liters per day, this is a variable. Is it summer time, are you hiking the mountains to get out, are you staying put because



If kept in the BOB, put it in two zip lock bags to keep it off other items should it get squished. I did use the Afterbite Outdoors and it helped with the itching. Didn't use the kids one yet.



This is the more durable Bivy sack. More than enough room for me and it packs down small.



I used one on each leg and went into the back yard. These work pretty good! They will easily fit into a BOB as well so, double score.



Oooo, cozy warm!



This is a very complete kit.



Doug Ritter puts together some very good kits. This PSP Plus kit is new as it now comes with a knife, a flashlight, sterile bag, water purification tablets, and the bag itself for the kit is waterproof. I did have trouble getting it all back in and sealed though.



All in one package, a great BOB addition.





Lots of good info right on the back of the display card.



If I had to have just one store bought kit with me, I think I'd pick this one. Even comes with a ball chain so you can keep the essentials around your neck.



The light is small but works great. Twist on/off, no switch to break.



Small but effective.

of injury and signaling for help? I carry 2 Guyot designs 32 oz. bottles or one Nalgene Oasis canteen (also 32 oz.) in my Canteenshop.com kit and an extra Guyot bottle inside the bag. After that, I'm either boiling water (using the tin foil from the survival kit to form a cup) to clean it or using the Frontier Pro from Aquamira. The Frontier Pro will filter 50 gal. of water and is very easy to use. I believe L.T. did a review on one of these in a previous issue.

Food. I'll pack a few items, some beef jerky, a couple Power Bars, maybe one freeze dried meal or an MRE. I would not concentrate on food as soon as you get into a survival situation. Lots of people have died because they didn't have a shelter, not because they ran out of M&M's. Remember, 3 weeks without food. I'm not saying it will be an easy 3

weeks but, that's the rule of thumb.

### More items to consider (in no particular order) for your BOB would be:

- A good first aid kit. The one pictured is a little big for the BOB but, it has a small, removable field/trauma kit that will either go on your belt or right in a BOB.
- Signaling device. Most small PSK's have a mirror, a whistle, or both. Learn how to use a signal mirror effectively, it will go a lot farther than that whistle will. Of course the whistle will go farther than the mirror in cloudy weather. Best to have both.
- Communications. Cell phone and/or radio that can be hand cranked. A solar charger for the



Above: This is great for the car.



This kit includes a SAM splint.



Center: Different sections, this kit covers just about anything.

Above: Even comes with a thorough book.





**Very adjustable to a variety of problems.**

radio or cell isn't a bad idea either. Immediately turn off all unnecessary stuff on the cell phone if you can. You don't need an Angry Birds notification sucking up battery usage at this time! Turn off the Bluetooth, turn off the notifications, turn off "push" mail. Save the battery!

- Mind occupying items (bible, pics of family, a flag, etc.). Not to be over looked, your mind is your most powerful resource here. If you are panicky, you will be lost and walking in circles. If you have something to calm you down and make you focus, you'll do ok.
- Navigation. Map, compass, GPS. Don't rely on the electronic devices, learn to use a compass. Most PSK's have at least a small 20mm button compass.
- Note pad and pen/pencil. What time did I figure out I was lost? Write it down. Are there any distinguishing landmarks near me? Write them down. This will also help with the mind occupying part. Focus grasshoppa!
- Fire making items, have more than one, use them easiest to hardest to save energy. I know you learned how to start a fire with a bow drill at the last survival course but, save that for later, use your lighter. You Do carry a lighter don't you? I don't care that you don't smoke, carry a lighter.
- Knife sharpening. Natural items like rocks, man made like a strop, keep it in the back of your mind how to keep your blade tip top. One of the harder things to replicate in nature is tools so, keep yours working for you.
- Cash, always in one dollar bills, 50 or 100. I know, not so useful in the woods except for tinder but, keep in mind the urban jungle as well.

Think natural disaster and you now need to barter with someone. Have a dollar bill to buy a bottle of water. Chances are slim that they will have change and if you give up the one and only piece of currency you have, the \$20 bill you keep hidden in your wallet, now you have nothing.

- Personal Survival Kit. If you have to dump and run, have something on your person at all times. That little PSK may just save your life. Urban jungle again. You get mugged by three people and they take your BOB. They didn't know you had your S.O.L. survival kit in your cargo pocket. You still have signaling, a knife, a flashlight, a way to make fire, a water proof container, a compass, a whistle, some snare wire. Heck you got it made baby!
- Aluminum foil. Use to make a cup to purify water, use as a wind block on the fire you made. Use as a heat reflector or something shiny to attract attention. Lots of uses here and it packs small. Have some with you.
- Zip ties, paracord, and duct tape. The other hard to come by item in the wild: cordage. Have some zip ties and paracord for helping in shelter making at the very least. Pull out that 55 gallon drum liner and stretch it between 4 poles lashed together to make a shelter half. Make another one for a roof (look for a DVD by Gene Ward and you'll see all the wonderful shelters you can make out of a plastic bag, some sticks, a few zip ties and some duct tape).
- Zip lock bags. Keep your electronic devices dry, water gathering, for your medicine, identification cards, etc.
- Fifty five gallon drum liners. For shelter building and rain wear. Have three.



**Here's the kit you can just grab and go.**





This is just in that little bag.

- Baby wipes/toilet paper. Don't throw personal hygiene out the window right away. Stay healthy, you never know how long you might be out for. It'll be stressful enough fighting Mother Nature let alone your own body.
- Extra clothes, wool sweater and a hat. Some gloves if you have room. If you get caught staying in a valley at night, it'll be colder than up on the hill so, have extra clothes. Did you fall in the creek on the way up the hill? Have extra

clothes. You are with someone less prepared? Have extra clothes.

There have been many books written on the survival topic and how to be prepared. The only book that comes to mind on making various BOB's though is *Build the Perfect Survival Kit* by John McCann. This is a great resource on putting together your own BOB and I highly recommend it. It's well worn and on my book shelf. Another great reference book is *Survivability for the Common Man* by Dave Canterbury. The information and pics are very useful. Just like any subject, use reference material as a guideline and make your own decisions. Get out with a group, join a club, join a forum (but use only for reference to different web sites, there are lots of arm chair survival experts out there). I personally have attended the Pathfinder Gathering held by Dave Canterbury and it was very good. It just so happened that John McCann was there too so, I got to meet and talk to a couple experts in the BOB field in one shot.



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# Mother Nature's Little Lessons

By Reverend Robert Schuler



Martha and the author at China Camp State Park.

I love my children and I care about their safety. Our children are, after all, a legacy we leave behind. Attached to that concern for their safety is the knowledge that I, as a parent, am the teacher. When considering writing an article on self-reliance as it relates to children so many thoughts went through my mind. I am filled with stories that play like movies as I have always experienced memories in Technicolor and full action. In those mental movies my adult children can range in age from can't walk to can't catch them, from can't talk to can't stop. So now we come to the question. Considering self-reliance in the outdoors as the theme, what did I send away with my children they can continue to use and perfect?

It seems logical to begin with my grandpa, the teacher, and what I learned that came away with me. My grandpa loved the outdoors and my fondest memories of him are there, in the green. Lessons my grandpa taught me: stay out of the rain and stay dry, keep a cool head, never go it alone, always let someone know where you are, leave every place as you found it or better, respect nature, and have fun.

Robert Schuler comes from a family of four brothers and one sister. He and his brothers would spend hours playing with slingshots, bows, and pellet guns in the forest, fields, and creek at the end of their block in Michigan. Schuler is a Marine veteran and former police officer. He was also homeless for about three years living out of his truck. He has 3 daughters and 1 grandson with another on the way. Schuler now has a web site to help make our planet a better and safer place to live.

I will tie into some of these lessons throughout the article. I have chosen to share these moments from my life so every reader can take away a piece of this article that can be deposited as a memory and recalled when the need arises and so the sharing begins.

I want to start out with a bit of humor as I can still laugh when I bring back the memory. It was a beautiful day and I was taking my daughters fishing. Not a new pastime for Jessica but little Laura's first experience. There was a picture in the local paper to celebrate Laura's first fishing trip with Dad.

As the memory rises I can still hear the sound of the crunch of pebbles beneath our feet as we walked along the river bank looking for the perfect spot. The spot found, pole set, I can hear the girls giggling and the sound of birds singing all around. I stop to take in the sound of the river as it winds like a liquid ribbon of silver pushing its way through the



Jessica and Laura playing and fishing at Hidden Lakes.





Jessica playing on the rocks in the creek.

green. A new sound enters my head, it's a bell. It's the bell, on the end of my fishing pole. "Fish on!" Woo hoo!

As I ran for the pole, which was propped up with an old piece of a rocking chair I found on the river bank, I could see the girls getting excited as a reaction to my own excitement. Laura was watching so intently her little hands moving back and forth underneath her chin. I was a proud father just happy to be sharing this moment with my daughters. All was going as if planned and I finally landed the fish on the river bank.

Now as fish will, once on dry land it began to seek water again which involved a series of jerks known to most of us as "flopping." All of a sudden Laura began screaming and moving away from the fish. I didn't know what had happened and the scream startling me I put down the pole and tried to find an injury. A bee sting, spider bite....I could handle that. But the tears streamed down her little cheeks and the only thing she repeated was "put back." She would not be comforted by me. Jessica

began to talk to her little sister to calm her while Dad desperately tried to get the fish off the hook and back into the river. I had never before or since felt so inept at getting a fish off a hook. I think my panic is what makes me laugh since I did not expect or plan for Laura's reaction. Hmm, always plan for the unexpected.

### **Lesson 1: Don't panic, as cooler heads prevail.**

This is a bit of a story about my youngest daughter, Martha (seven), not a glimmer in her Daddy's eye at the time of Laura's first fishing story.

It was a warm, sunny afternoon; Martha and I can see minnows crowding along the water's edge as we looked for "the" spot. As we walk we can hear the ducks overhead and watch as they glide in silently landing to feast on all that the lake has to offer. We were fishing for bass using purple crawlers that are what the fish were biting on. The next thing I know Martha sees a bass just a few feet from the shore along some cattails. While I am peering in the tackle box, Martha moves closer to get





**Laura fishing on her own just two years after the “put back” incident.**

a better look and loses her footing and with a splash she is in the water. I looked on in amazement as Martha started wailing and flopping about. She was in a great panic. However, I knew that she was only in a few feet of water. I yelled to Martha to calm down and try to stand. She yelped a bit more and then stood up and realized that the water was just at her waist. It was hilarious watching Martha flop around, but the most important lesson that day was if she keeps a cool head and listens, she can often get herself out of a bad situation.

## **Lesson 2: Respect nature.**

Checking out the wildlife was one of the most interesting things to do at the lake. As a fresh water lake it supports many different species of mammals, fowl, and fish. In order to get close without frightening the lake dwellers, Martha and I would get down on our hands and knees and crawl as close to the water’s edge as we could get. Moving very slowly. This tactic allowed us the privilege of watching unseen. This time we saw several turtles

sunning themselves on logs. The first few times we tried this we scared the turtles into the water but practice making perfect we worked it until we learned to be truly silent. The lesson Martha learned during this adventure is that if we take a slow and cautious approach, blend in to our surroundings we can often get close to and observe nature. **Respect the Mother.**

## **Lesson 3: Leave every place as you found it or better.**

Tying into respect for nature is the motto that what we pack into the wild (or any other place for that matter) we also pack out when we leave. If we find trash we pack it with our garbage and carry it out. We have been gifted with this wonderful planet and we are charged with stewardship of the land and the planet. We must take care to leave a legacy of which we can be proud. How will we be remembered?

## **Lesson 4: When going into the wild be practical and prepared.**

It is important to check out the weather when you are planning a hiking or camping trip. Think about the forecast and what type of season is upon us, therefore, allowing you to pack the appropriate clothes and gear. So many times we want to look fashionable instead of comfortable.

There are many lessons to be learned and much insight to be gained by reading about coexisting with nature, seeing nature as a part of us all. Dust to dust so the story goes. I am working on other stories and lessons to be learned and passed on. Coming attractions: the bees and the boys.....then Martha as Pathfinder.

‘Til next time. Honor all Mothers and tuck these lessons into your memory, use as directed whenever and wherever the necessity arises. Peace & Blessings.





# What Now?

By David Stous

**C**lose your eyes for a moment. Try to imagine.... You've decided, after years of sitting in front of the TV or your laptop computer (or both) to make a change in your lifestyle. You're going to start eating right, get some exercise, get out in the fresh air and the sun and do something. Don't laugh, I was the same way. When I was younger, I was *\*very\** active. I ran every day, I went camping, hiking, fishing and hunting with my Dad. I *\*hated\** to be stuck inside. Then I got older (happens to the best of us!) and stopped doing all of that. There just never seemed to be enough time.

So, you're out on your first hike in years. It's a beautiful trail. Birds are singing, squirrels and chipmunks are scurrying around....then you suddenly realize...

You've managed to wander off the trail.

You have absolutely no idea where you are!

You think for a moment... "Where was I? How far have I gone? Which way was the trail? It's OK, I can find my way back. No problem."

You turn around to find your way back to the trail and you realize that nothing looks familiar. (It's amazing how much the view can change in 180-degrees!)

"Hmmm," you say to yourself "I think I came from that direction."

But the sunlight seems wrong (remember how things change in 180-degrees?), you can't figure out where you were going, or where you were coming from.

The trees seem suddenly tangled, as if they themselves were trying to keep you from the trail you had been on. You start to panic...you taste copper in your mouth (that's the adrenaline kicking in)...you *\*know\** the trail must be just around this corner coming up.

You are now officially LOST.

What you do now will determine if you live, or if you become a statistic.

So, what do you do?

Shaken, you remember the weather report for today included rain for late afternoon. "Try to remember! What do I do?" thinking of your younger days when you went camping all the time.

With the rain coming, you know you need to get out of it somehow. If you don't you will suddenly find yourself not only wet, but cold. Sitting down on a fallen tree stump, you try to make yourself calm down and take a quick inventory of your backpack. You had intentionally left your cell phone at home, thinking "I'm not going to be gone that long, and I want to enjoy my hike without being disturbed." Now you wish you had brought it. At the very least, maybe you could have sent a text message to someone, plus it has a GPS locator. But that's all pretty academic now. There are a couple of trash-bags you found on the trail and remembered thinking to yourself "Why would someone just toss these in the woods? Don't they care about the environment?" Now, you're glad they did. They seem to be in good shape and fairly thick. You can cut or tear a hole in the bottom of one of them and turn it into a makeshift poncho! You have some trail mix in a good-sized zip-lock bag, a sandwich and some crackers, so you don't have to think about food. You have a small lighter in your pocket that you were going to use to try and start a little campfire to hang-out next to while you ate your sandwich and crackers and watch some of the wildlife around you. You have a multi-tool on your belt. It's not much, but it has a good sharp knife blade on it. In the back of your mind, you remember making feather sticks with a pocket knife for starting a fire when you and your friends went camping all the time.

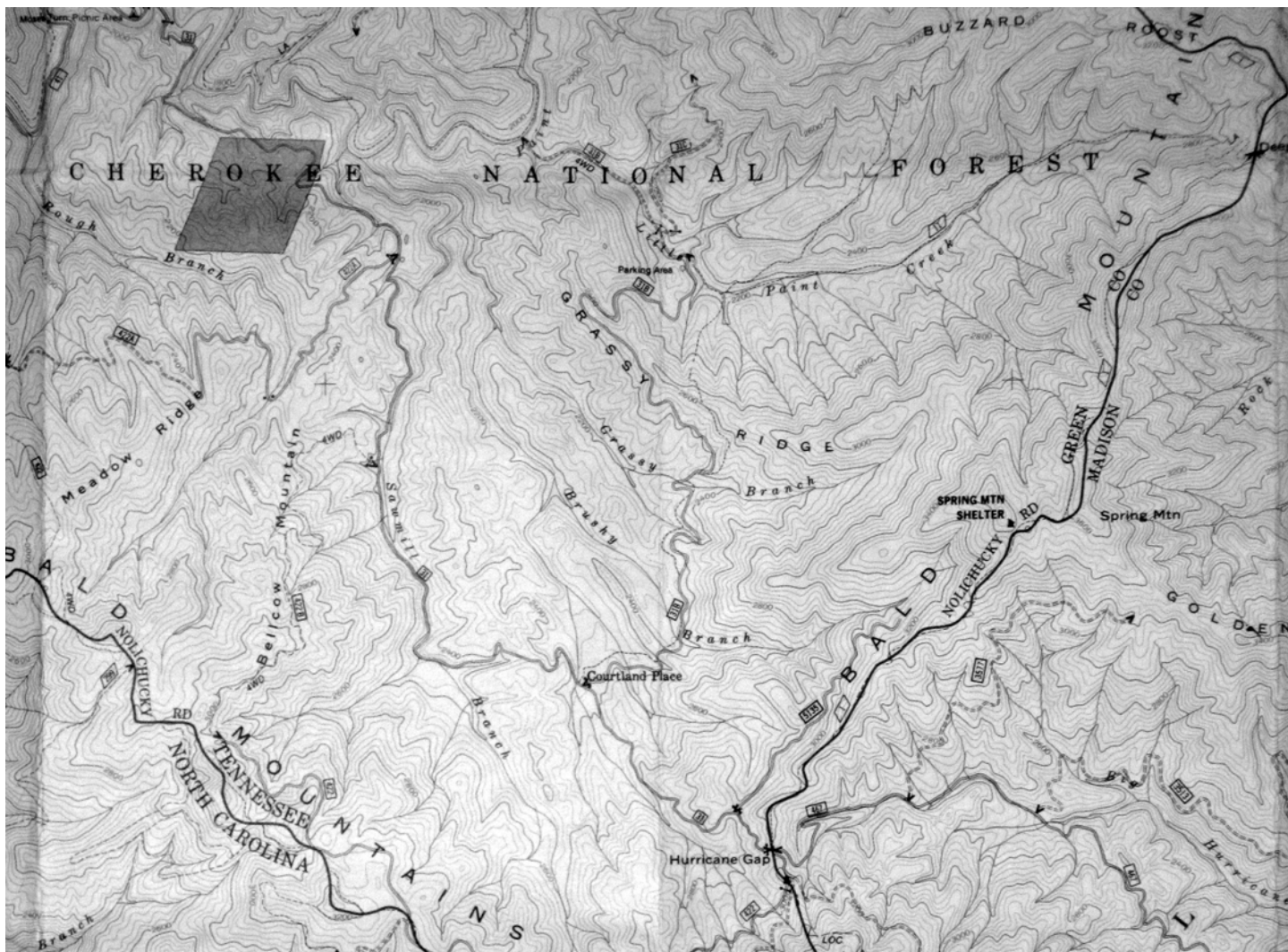
"OK, let's see," you think out loud. "Trash bags, poncho, and shelter. That will do for now. Lighter... well, that's obvious.. start a fire. The bag my trail mix is in, I can gather some berries or something when I run out of trail mix. I have a stainless steel bottle with water still in it. Was that a stream I passed a little while ago? I have no idea if it's safe to drink. Hmm, maybe I can boil it."

You start looking around your immediate area

**David Stous is a US Army veteran who first started going out in the woods when he was about 7 years old, hunting and fishing with his father. He recently renewed his interest in Bushcraft when he decided after many years to start going outside again to live a more healthy lifestyle. Mr. Stous lives in St. Albans, VT with his wife Wendy and their five fur-babies.**







Photograph by Jason Gatliff.

and notice a tree has fallen down not very far from where you're sitting. "That has some potential...not too big, not too small. I can cut open one of these trash bags and make a little tent! It'll keep the rain off me, at least. This thing's going to fly all over the place if I don't tie it down though. I don't want to give up my shoelaces either. Hmmm....maybe I can braid some roots or something." Worried that you'll break the blade off of your pocket knife, you sharpen a decent diameter stick and start digging down with it next to a pine tree, thinking "Pine's a soft wood, the roots should be easy to work with." After you've gathered up several yards of roots, you grab three of them and start braiding them together like hair. A short while later and you have enough rope (for lack of a better word) to tie down the corners of your trash bag. You place a small rock in the corner to keep the plastic from tearing and put a small half-hitch knot around the corner of the bag. Realizing that the other end of your rope will probably need to hold onto something as well, you find a few sticks

about an inch or so across, whittle one end to a point and drive it into the ground, tying your root rope around it so it's reasonably tight. You spot a downed Pine tree not far away, and start breaking some of the boughs off and tossing them on the ground under your make-shift tent. "That should be at least a *little bit* more comfortable than just laying on the ground", you say out loud to yourself.

Standing back a little bit, you evaluate your work. "Well, it's not too bad, I guess. It'll keep the rain off me. The wind was coming from in front of me, so that will help keep the breeze off me. I think those pine boughs will help a lot so I can maybe get a little sleep tonight. Maybe I should layer a bunch on the top of the trash bag to hold out the rain a little better." Looking at the horizon, you realize you don't have much light left for the day, maybe two hours at the most and start to get nervous again. It's been a long time since you went camping, and never by yourself and never in these woods.

You start looking around your immediate area





Photograph by Jason Gatliff.

for some dry branches you can use for firewood, and soon you have quite a bit. You start breaking off the smallest branches and twigs and put them in separate piles to make it easier for you to get your fire going. You're glad that you remembered that there's a few pieces of paper towel in your backpack that you had planned on starting your little campfire with. Now your "little campfire" might save your life.

You have successfully stripped the branches you found of all the little twigs, but realize now that you don't have an axe or even a decent-sized knife to split it with, but your small multi-tool you have with you **does** have a small saw. "Maybe I can cut it part way," you think. "Get it at least far enough through that I can break it into smaller pieces." The light is obviously dimmer now, you've got to work fast and get your fire going. You cut through the first branch about halfway and try to break it on your knee, but it's too hard. "I need more leverage..." noticing a pair of trees growing very close together. Picking up your branch and placing it between the two trees with your cut facing away from you, you pull hard. Instead of breaking, your branch has cleanly split! "Now you've got a technique!" you say to yourself. Quickly, you go to work, sawing halfway through all

the way down the branch, breaking off nice cleanly sections of wood for your fire and soon you have a pile of firewood that *might* last the night.

You look at your two small pieces of paper towel from home, immediately wondering if this will be enough. "What if I'm still lost tomorrow?" You try to think "what else can I use? When I was growing up, Dad always saved the Christmas tree for a place for birds to go when it was really cold outside, then we burned it in the backyard the following Spring. He never had to use gas or lighter fluid, just a quick touch from his lighter and it went up." Quickly scanning the area you got your pine boughs from, you spy a small branch of dead pine. Breaking it up into little pieces, you put them in a pile a few feet in

front of your shelter, close your eyes and strike your lighter. The sap remaining in the dead pine branches takes to your small flame like a baby to milk. You're so amazed for a moment that it worked, that you almost forgot to start feeding your fire its small branches until it's going well enough to start putting on some of the larger pieces. The heat of the fire is strangely comforting. You had found some larger branches that were obviously still too wet so you stack them on the opposite side of your fire. Almost immediately, you've noticed your small fire seems to be putting off more heat, as it reflects off of your stack of wood that's meant to be drying by it.

"This would be pretty good if it wasn't for these bugs," you think. "Maybe a little smoke will drive them away." You get up and grab a few small pieces of still green pine and put it on your fire. Immediately, as large plumes of white smoke start pouring off your fire you think, "It's probably too late for today, but I'm sure that much smoke will get someone's attention tomorrow. I should probably just stay put and do what I can around here." Reaching for your sandwich, you say to yourself, "Tomorrow, I'm getting out of here."





# California kid meets his match in a feisty squirrel

By Randolph "Randy" Merrill



To the novice hunter from California, his first quarry was larger than life.

The year was 1968, and I was a sophomore at a small Midwestern college. A city boy, born and raised in Los Angeles, California, whose father had died when I was only seven, I had little experience with the great outdoors and even less with hunting, the exception being the occasional unfortunate sparrow or starling that happened within range of my German-made pellet gun.

Now here I was, let loose on my own in a plot of woods on the property of a local sheep farmer who must have assumed I knew what I was doing, because he had given me permission to hunt squirrels on his land, provided I didn't mistakenly shoot any of the big, woolly white ones that didn't climb trees. I assured him I didn't think that would be a problem, and set off for the first real hunting experience of my young life.

My hunting outfit and gear that fine autumn day consisted of blue jeans, a pair of brown leather boots, a green flannel shirt, a blue denim jacket, a

camouflage hunting cap, a Bowie knife and my brand new straight-out-of-the-box Springfield semiautomatic .22 caliber rifle that my mother had bought me for my birthday from a sporting goods store in Los Angeles. I was the epitome of inexperienced overkill, right down to the .22 longrifle hollow-point ammunition I was carrying for "maximum stopping power." After all, who could know what other wild creatures one might encounter in the wilds of rural Nebraska?

The first thing I discovered was that "stalking" these ever-alert squirrels was not going to result in a successful hunt. At my approach, they simply sounded the alarm and retreated high up into the safety of their ancient oak trees, where they could watch me vainly tromping

around down below, while they chattered and mocked me from above. They never stayed in one place or exposed themselves long enough for me to get a clear shot.

When I was finally frustrated enough to chance an ill-advised shot at one of the stealthy creatures, not only did I miss it entirely, but the whole bunch of them dove for cover in their nests of leaves or hollows in the trees, where they hid for the next half-hour or more while I fruitlessly traipsed about hoping to catch a glimpse of any hapless individual who had not heard the alert.

It eventually occurred to me that the only way I was possibly going to bag myself a squirrel or two was if I positioned myself on the ground and sat

**Randolph "Randy" Merrill is a California native who developed a lifelong love for hunting and the outdoors after first visiting the Midwest in 1969. Randy parlayed his interests into an undergraduate degree in Biology and a Master's degree in Administration. The proud father of five sons lives with his wife of 40 years in rural Missouri.**



perfectly still in the hope that they would think I had gone. I found what appeared to be a likely spot at the base of a large oak tree, wide enough to conceal my entire back when I was sitting against it, and made myself comfortable with my gun at the ready across my legs. Then I waited.

It was late afternoon, the sun was dipping lower in the west, and I found myself being lulled into a state of drowsiness by the peaceful sounds of birds, the trees rustling in the wind, and the dappled sunlight playing across the leaf-covered ground.

Suddenly I was roused out of my stupor by a movement to my left on the trunk of a tree not 50 feet from where I was sitting. It was a large squirrel, and he was now only about 10 feet above the ground, cautiously surveying his patch of woods for any potential predators as well as any delectable acorns he could add to his winter larder. I was amazed that he apparently had not yet noticed me, but even more amazed that he had managed to descend as far as he had without me noticing him.

My heart began to race with the excitement of bagging my first squirrel, and I ever-so-slowly began to raise my rifle into firing position. Seconds seemed like minutes and minutes like hours as my prey continued to descend the tree in short, deliberate lunges, and as I silently drew a bead on the area of his body a short distance back behind his head where I imagined his heart would be.

Momentarily, the former peacefulness of the woods was shattered by the ear-piercing crack of my .22, and I fully expected to see my target drop like a stone to the ground below, dead. Instead, to my surprise, nothing had changed! The squirrel still clung to the trunk of the tree as if frozen in time, showing no evidence of having been hit, and apparently unable to decide between fight or flight!

In that instant, it occurred to me that I might have missed him, and that he was unsure what he had heard or where it had come from. Instead of bolting for safety and subsequently giving away his location, he had chosen to take advantage of what is possibly a squirrel's best method of defense—to remain absolutely still and blend in with its surroundings in the hope of remaining invisible to its enemies.

I, on the other hand, had every intention of capitalizing on his apparent indecision, and I quickly squeezed off another round, which I was sure must have struck him in the back. Astonishingly enough, he still did not move, and I now began to question whether or not he was even still alive. Was it possible that I had killed him with my first shot, and

it was only his death grip that kept him clinging to the tree?

Not willing to base the success or failure of my hunt on what might turn out to be a false assumption, I fired a third shot, which this time visibly blew bark off the tree immediately to the right of my target. Either the proximity of the shot, the fact that I moved noticeably as I pulled the trigger, or a combination of both—I'll never know for sure—suddenly brought my "dead" squirrel to life, and he bolted the rest of the way down the tree with a vengeance!

Startled at his sudden re-animation, I quickly stood up and took aim with the intention of putting him down once and for all. Simultaneously, and to my chagrin, I became aware that, rather than running for cover, he was now charging straight toward me, apparently with every expectation of dispatching his antagonist—yours truly!

Never having anticipated such a David and Goliath confrontation with such a small, "helpless" critter, I did the only thing that came to mind and emptied my entire remaining load of ammo at the enraged beast, firing my last shot just as he reached the very toe of my boot and began gnawing on it.

Feeling decidedly unlike the "great white hunter" the likes of Frank Buck or Peter Capstick, and positively humiliated that my first squirrel hunt had come down to this, I drew my Bowie knife out of its sheath and proceeded to dispatch this noble rodent who had proven himself more deserving of respect for his bravery and tenacity in the face of overwhelming odds than any larger, more impressive beast I could have imagined—either that, or he had rabies!

Later, upon closer examination, I would discover that only one or two of the 17 rounds I had fired had struck home. One of them, which had obviously hit him as he charged across the ground toward me, had opened him up along his belly from chest to vent, just as if it had been done with a knife, but still insufficient to end his attack!

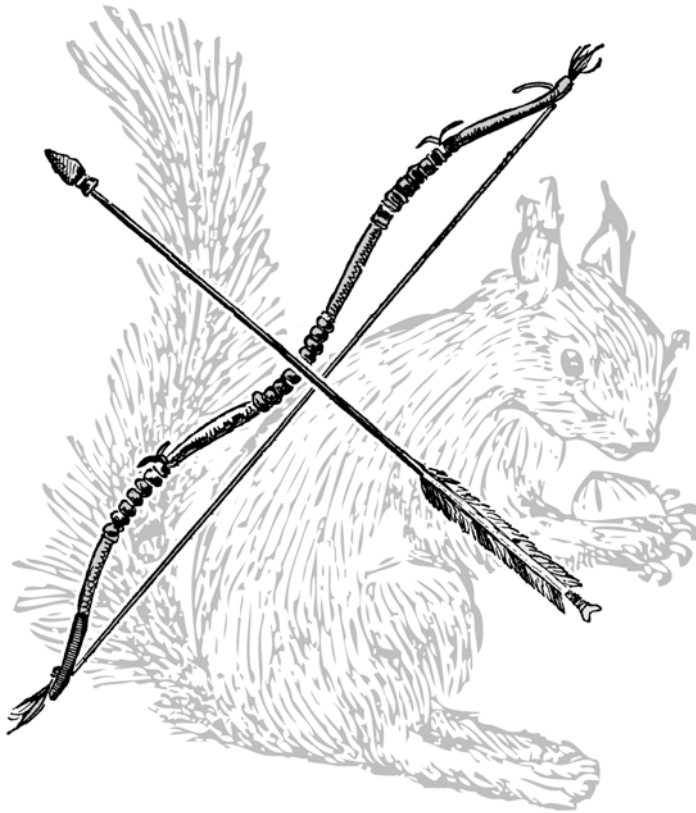
And so you ask, is there anything that can be learned from my relating of this experience? Let me suggest the following: There is no creature or situation in nature that is more dangerous to the life and health of a human being than his or her own complacency and inexperience. No matter how benign it may seem, the great outdoors is no place for a novice, not even on a small farm in Nebraska!





# How I Make a Squirrel Skin Bowstring

By Jamie Burleigh



**W**hen I make traditional self bows I like to sometimes make period correct rawhide or squirrel hide bowstrings. I have had experience with bowstrings from dogbane cordage, nettle cordage, deer rawhide, woodchuck hide, badger hide, and fox squirrel hide.

First, you must acquire a hide! Preferably fresh and free from as many holes as possible, shotgun kills do not work well as there are lots of holes to work around!

I cut the head and feet free so I have a nice oblong skin to soon stretch. Then I take the hide and stretch it out on a board and nail or pin it taut. Salt the hide and place hide in a dry space away from any critters that may want to eat a salty treat! Within two weeks the hide will be ready for the salt to be scraped off. Leave the hide stretched and salt free for at least one more week!

Now you can take the hide from the stretched board and cut it into the largest ovular shape you can make from it. With a pencil I like to draw a spiral line slowly working my way to the center of the oval hide on the dry non-hair side that is close to 1/4 to

5/16 inch in thickness until you run out of hide. With good cutting shears follow the line you have just drawn and work your way carefully to the center.

What you will end up with is about 10-15 feet of hairy thin rawhide ready for a soak in cold water. I like to take a bowl and fill it with cold water, stuff the soon to be string in the water, and place a smaller bowl over top of it to make sure everything stays submerged. After about a half an hour of being soaked, take the string and pat it dry with paper towels. Now it is time to twist it into cordage...

You will want to take a nail or use a small branch on a tree about eight feet off the ground and loop the string over it one time. Then you even up the ends and tie an overhand knot in it. Now with a stick about a foot long place it in the "loop" you have formed keeping tension at the knotted end with the stick placed through the loop. Begin twisting the stick until the string wants to kink, then pull tight and squeeze the water out of the cordage. Then repeat until the string is twisted uniformly and tight enough that it does not kink up. Secure the stick by suspending a weight from the now cordage and secure it so it does not unwind.

Leave this for about three days and you will have a nice taut string with a smooth open loop for one bow tip and a knotted end at the other. To make this fit a custom bow, measure to see how long your string has to be, then wet the knotted end, let it get pliable and then you tie off a loop with a figure of eight loop knot and set aside to stiffen up and dry!

Then put it on your bow, you should be pleased with the outcome as you will have a 1/8 - 3/16 inch diameter bowstring with the fur silencers built right in! These strings...depending on the bow's shape and performance will last anywhere between 500 to over 1000 shots. Good luck, happy hunting, and don't throw those squirrel skins away!



Jamie Burleigh lives in Michigan, practices and uses primitive arts, survival skills, hunts, fishes, and tracks all the creatures who cross his path while still trying to identify his place in the wild.







**The container will hold almost 2 liters, and the "top" will hold 10 ounces at a time. Great for transporting and drinking.**

*(Continued from page 8)*

together and sealed with pitch and twine or sinew. The filter can then be hung over a catch basin and the top section filled with water and left to drain. Like the clay pot mentioned above, the water coming out would clear as crystal and safe to drink. Again, this is 200 years ago we're talking about. Our bodies were adapted to the outdoors and the bacteria back then. Due to modern living and a lack of outdoor exposure, we are not about to tolerate that same water today. Add in the fact that new germs and cysts are being discovered all the time; you will remember why we boil. As I am writing this, there is a report on the local news of a new virus in the lakes and streams in South Carolina that can infect you just by swimming in the water. I don't even want to think about drinking it!

That was just a couple of examples of ways our forefathers would filter water for drinking. And maybe you can apply these to your time in the woods or your personal space. But I said something about ways to carry water as well. I know we all have our canteens and SS bottles and such, but what if your canoe tips, or you get separated from your gear? I am sure if your neck of the woods is like mine you



**This is a mock shelter to show the bamboo shingles.**

can find some trash laying around. I found a 5 gallon glass jug in the woods not too long ago. But you can't depend on junk to get you home or keep you healthy. You're going to have to improvise something. You can burn a bowl or cup if you have time and a fire, but you need a way to seal it up if you are planning on taking water with you. I advise you to take some water with you if you are going to self-rescue or venture away from camp. Don't take it for granted that you will find more! Even without tanning it the hide of most fur covered animals will hold water to an extent. So if you are lucky enough to have harvested a rabbit, or better yet, a large raccoon or possum, you can process the hide carefully enough to make a small water container with nothing more than a needle and some thread. These should be on your EDC, along with your knife, and always with you at all times. An even



**The shingles feed rain into a trough.**





**The trough feeds the water into a hole filled with a plastic sheet, or poncho.**

easier method is to just take a couple of sections of bamboo and make a tube type container to take with you. I know bamboo doesn't grow everywhere, but it grows in a lot of the areas of the US. To make a container for carrying water just find a bamboo section about 3 inches across and cut at least two nodes from it. Cut it so that the bottom is close to a membrane and the top is open. Take a medium sized stick or sapling and sharpen it to a point. Using a baton, drive the point into the membrane in the middle of the two sections to open it up into one big section. Now you have watertight device than can hold 2 liters of water, depending on the size of the bamboo you use. This can even be placed over a fire, and used to boil the water right in the container. If you need a lid so you can carry it, just cut a section of bamboo a few nodes above where you cut it off and it should fit tightly into the top, sealing it up good and proper. You can even get fancy with it and cut the top in a castle or notched fashion. Then

weave a strap through it so it holds the top down while carrying it. If you plan your cuts right and get a good section of bamboo your lid can even double as a small cup for drinking from. Everything you need in one easy to find plant... how much better can it get!?

One last idea that I am going to share with you, if your personal space is starting to lack in the water department like mine is, you're probably thinking of moving somewhere else, right? Why? I had a stream that ran through my PS (personal space) and was not more than 15 yards from my shelter. This was perfect for me due to the easy access to water and the animals were coming right up to my camp at night! But with the drought and the heat of summer 99% of the water in my woods is gone. So I need to relocate right? Wrong! Why move to the water when I can bring the water to me? I have taken some bamboo and layered it across the top of





**Left:** Bamboo is split, and the membrane notched so water can flow.

**Below:** A small piece of cloth filled with sand is stuffed into one of the chambers of bamboo.

my shelter in shingle form not to stop the rain, but to catch it. At the bottom of the shingles I have another piece of bamboo laid at an angle and feeding into a hole that I dug and lined with some plastic from a garbage bag. Now I have a 5 gallon "bucket" that fills with rain, and even the morning dew when there is some, and keeps me in a decent supply of life giving water. It won't last forever mind you, but every little bit helps. Keeping the top of the hole covered when I am not using it helps retain some of the moisture that would be lost through evaporation and keeps most of the creepy crawlies out. I hope some of what I have shared with you will help you in some way. Maybe you can apply this information to your homestead project or personal space. If I have done nothing more then get the wheels turning







**Above:** While twine, and pitch can be used to seal the halves, duct tape works fast!

**Below:** Don't mind the sand that got spilled in the beginning....that is the nectar of life dripping into that bucket!



**This is the water used for all examples.**

so that you do some research on the subject, I feel I have done my duty. For as a great man has said, "Lets learn Together", a motto I feel we all are living by and sharing in this publication is one of the best ways to do it! Until next time, get off the couch, and **GET DIRTY!!!**





# Pathfinder Youth Organization

## *The More You Carry*

By William Sigler

**T**hey say the more you carry in your head the less you have to carry on your back. I don't know of any of us that would disagree with that statement.

Whenever I see somebody on line show what they carry and ask what other people are carrying, I am glad that they are sharing but I am often more interested in their choices and why. I find myself tearing apart my day pack several times a season to evaluate what I really want to carry day in and day out in the woods.

You can see from the pictures that there is not much involved in our basic kit, but it has the items we need for our classes. Even this kit has been reviewed and changed several times. But this is not about what is in our kit.

By the way, I would like to thank our Semi-Professional model for donating his time. Great pose eh?

What is the minimum size for a kit? 20 piece.. 10 piece .. 5 piece .. nothing, that all depends on you and how much you know. Or it could be because of how much you don't know, as we are about to learn.

This is the story of Johnny and Sally. They are going to help us to understand that the greatest tool you have is your knowledge and the greatest skill you have is how you use that knowledge.

They were on a camping trip with their parents and were having so much fun they forgot their kits when they went exploring. They did not pay attention to where they were going (and where they had been) and they got lost. Of course, they didn't know that they were lost at first. When they realized that they couldn't hear the sounds from their camp site, they then realized they couldn't remember how many left's and right's they had made, they were SURE that around the next bend in the path they would catch a glimpse of their tents. Well, as you can imagine that didn't happen and they went deeper in the unknown.

Now the men reading this will say that Sally

could not read a map, and the women reading this will say that Johnny could not stop and ask for directions. The facts that they did not have a map to read and the last convenience store that they saw was when they entered the National park three days ago are beside the point. Any more about how they got lost we really don't need to know. The point of this story is what they did!

Johnny and Sally are typical brother and sister because they will occasionally enter into a "Rip-Roaring Brouhaha" that usually ends in neither of them admitting defeat, and their parents calling for a cessation of hostilities.

Johnny and Sally are not typical kids of today's society because they had been taught the basics of what to do when lost in the woods. Unfortunately like a lot of people, today they were lazy and were not planning to get lost so they did not have their kit with them.

Fortunately they paid attention at their safety class and started to put that knowledge to use now.

They are also NOT dumb because as soon as they admitted that they were truly lost, they knew that they were on the path to being found.

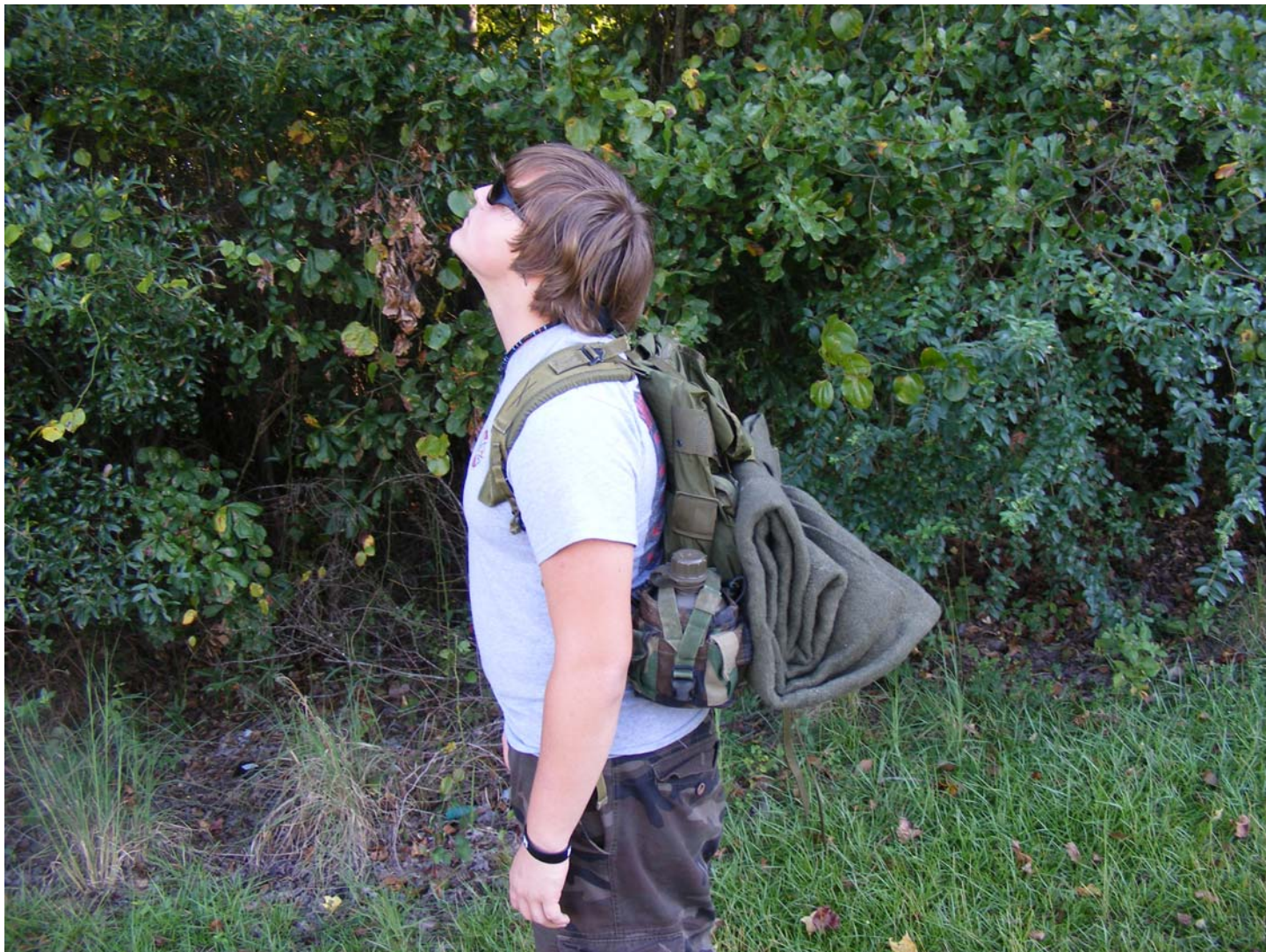
The first thing they did was S.T.O.P. .

Instead of turning the next corner and the corner after that they stopped, took a deep breath, and calmed down. This allowed them to think about what they needed to do next. They observed that they were in a valley that had a large fast running stream. Of course the first part of their plan was to make as much noise as they possibly could. After about 10 minutes of screaming at the top of their lungs they gave their voices a rest and they noticed that the sun was starting to go down. This called for

William Sigler is 52 years old and has been a resident of Western Pennsylvania his entire life. He is part of the Pathfinder Youth Organization family and has been named as the President of the soon to be formed National Pathfinder Youth Organization. He is a certified commercial and public safety diver, and is also a student of Bushcraft and Wilderness Self Reliance.







**Christian D. Seal is carrying the basic PYO kit that is supplied to our chapters.**

a change of plan.

Together they knew that their parents were probably frantic by now and that others were also probably looking for them. They realized that the best way that they could help the people searching for them was to signal the best way that they could and to “Stay-Put”! What they decided on was to stay where they were and prepare for the night. Hollering for HELP would have to wait until they could do more than squeak.

The first two things that they remembered were that the cold air would sink into the valley and that they had to insulate themselves from the ground and the night air. The easy part was to climb up the hill. At the top they found a large fallen tree that partially blocked the wind. The forest floor surrounded them with fallen leaves. It wasn’t that hard to move the leaves into a big pile on the protected side of the tree. Their plan was to crawl into the pile and mash the leaves flat, then get more

leaves and do it again, and again, until there was a nice pad underneath. Then came branches that were leaned against the fallen tree and as many leaves as they could gather went on top of the branches. All topped off with heavier branches. The final thing they did in the failing light was to fill the rest of their shelter with leaves and crawl inside.

The night was long and they didn’t get any sleep but they were sheltered and when their blanket of leaves settled they pulled more in to fill the gap, so they were much warmer than the cold night air. At sunrise it was still much colder outside so they stayed covered up.

Our story ends happily with Johnny and Sally screaming at the top of their lungs the moment they heard dogs barking and people calling their names from below. By the time they had scrambled out of the leaves they could see people in the valley starting up the hill towards them.

These dirty, scared, cold, but safe kids were





The PYO original basic kit you see here has been updated to replace the hand axe with a folding saw.

there because they remembered an afternoon they spent in the woods months, and months ago. An afternoon where they listened, asked questions, built shelters, and learned from someone with our type of knowledge.

I am sure that you have said to yourself they could have done this, or this, or ....., the point is that someone like us spent an afternoon with these kids to pass on their knowledge. The kids learned by doing and remembered some basic skills and very valuable information.

Now I would like you to travel back with me to that afternoon months ago that helped to keep Johnny and Sally safe. I know that we weren't there but I was wondering how we would have helped these kids.

They don't have to be survival experts at the end of the afternoon; they only have to know how to use their kit and especially understand the reason "WHY" each piece is there. I am suggesting that we give these kids some common sense, real world knowledge. Oh by the way, some local businesses donated some common items for us to give to the

kids. It doesn't matter that some of them have logos; this is stuff that we can use. Let's take a look at what we got.

We got some small zippered waist packs from the bank to carry stuff in. We got whistles with neck cords from the sporting goods store. We got the local hardware store to give us some heavy garbage bags and masons line. The local pharmacy gave us some cotton balls and petroleum jelly. Oh and by the way the grocery store gave us some heavy duty zip-seal bags and some of those cheap lighters. A pretty good haul if you ask me.

Now not many outside our community realize how valuable these items can be to kids like Johnny and Sally when you apply the right knowledge. But as we build our mini kits we should work together with the kids to make sure they understand how to use each piece. They will then go home with something much more valuable than the Freebies.

We proved above that with no kit at all and the knowledge gained from one afternoon of our time, two kids have a good chance to handle what would scare the bejeebers out of many of their



classmates.

Of course small children probably shouldn't be starting fires, but they can start with "Hug a Tree", blow a whistle three times, and crawl into a pile of leaves. They can even be taught how to use one garbage bag as a Bivi and the other as a tarp.

This, my friends is a small investment of our time. We can teach them one or two at a time if we want to. We can show them what we know and learn WITH them!

They don't have to be part of the PYO to learn this, all they need is their desire and for us to share! Who knows, they might want to learn more.

So our emergency kits have a whistle, two garbage bags, some cordage, a lighter and some common man's Sure-Fire, along with a waist pouch to carry them in. A 10 piece kit this is not, but everything is readily available and can be easily carried.

The first thing we want to teach them is about the whistle going on their neck when they are not in arms reach of their parents, or better yet all the time when they are camping.

We can then have them climb into their garbage/Bivi bag and use the other one as a tarp without any other cover. This will keep them dry in a downpour.

Then we can stuff the bag with leaves and see if that helps to keep them warm. We can show them how to make a mattress by flattening leaves under them and then try using their garbage/bivi as a

sleeping bag. We can then ask them to find different ways to use what they have. If there is something that kids are good at it is using their imagination. If there is anything that really drives them it is their curiosity. They might even get us thinking. No matter how old we are, we can learn from each other.

The fire part is what all kids love. But we should make sure they realize that we are not building bonfires here.

When they ask where the knife is, what are YOU going to tell them? Think about our mini-kit and why we don't have one.

Oh, and when they ask where the "Sparky" thing is you know the one that they see on the survival shows, we can talk about how much easier it is to start a fire with the lighter, then we can talk about redundancy and sure fire as we show them how to use our last kit item the Fire-Steel.

Before we finish we should make sure they know what everyone else will be doing to try to find them. This will help them to understand why staying put and signaling is so important.

Now in today's society some of us may think twice about organizing such a class for strangers but why not for family members and friends. This is easy to do and if we end up buying everything it won't be too costly.

"The most important tool you can carry is knowledge.

Be Safe,  
Bill







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# What's New at *Blind Horse Knives*



By L.T. Wright



**J.D. Drilling and fitting scales.**

**S**o what's happening at BHK? Wow, lots of stuff. We have had a great year. To start with we were blessed with the opportunity to start this wonderful magazine with our dear friend Dave Canterbury. It has been a lot of work and taken a lot of time to get it up and running on all parties involved. We have loved every minute of it. Here at the Steubenville shop we have been running like crazy getting the stock knives and special orders out the door. We always love getting the emails that say "Hey, I heard you guys do custom work" Well yes we do...and plenty of it. We are constantly getting ideas and drawings from you guys. We like seeing what your "perfect knife" is. The thought that you put into the best knife for you always amazes me. Each and every one of us has a different idea of what the exact knife we would like to carry and use is. It is our pleasure to take your ideas and sketches to a reality for you. The greatest joy we get is sending you a knife and sheath that you thought up and getting an

email saying it is exactly what you wanted. This is what makes it all worth while. So if any of you have an idea you'd like to have built, by all means email us, we would love to build it ( unless it's some crazy fantasy design :-)

We have been working hard to bring you a great special every month. We are working on next month's special as you read this... it's gonna be cool it has a... wait a minute... you know I can't tell you that. Anyway we have been working closely with a couple of our advertisers and friends on some new designs that will be coming your way soon.

There are some new woods knives on the horizon from us. Dan and I have designed a new series of knives called the Woodsman Pro series. We are basing it on a design that Dan and I truly love. We have been hunters all our lives and wanted to combine a design that gave us the best hunting blade combined with what we feel is the best Bushcrafting blade. We are designing at least three different sizes that will allow for everything from small game prepping all the way up to chopping. Speaking of chopping, we are working on some bigger blades all the way around in all of our



**Brett edging a kydex sheath.**

**L.T. Wright is co-owner of Blind Horse Knives and comes from a very diverse background and has a strong passion for knife making. L.T., along with Dan Coppins formed Blind Horse Knives five years ago. L.T. is also one of the Co-Founders of Self Reliance Illustrated.**





**Justin checking the edge on the knives he is grinding.**




**Scooter polishing a finished knife.**

designs. We have gotten a lot of input from both the internet and phones with plenty of requests for bigger blades. Well, we have been listening and they are in development.

We have some new faces here in the Steubenville Shop. The guys have been working hard at learning our methods and general knife building. They have been quick learners and we are very excited to have them on board. We are very blessed to have some great new folks on board helping us bring you the best product we can.

We have been working hard on improving both our leather and kydex sheaths. A new addition to our leather pouch sheaths are the button snap sheaths. I wear and use my knife everyday in and out of the shop so carry and retention is something that is always on my mind. I pitched the idea to Dan about a button snap option on all of our sheaths and we have come up with a design that we really like. We have taken our bush sheath and added a few design changes and developed what we think is a great alternative to the regular pouch sheath. With the button snap you get a positive retention sheath that keeps the knife in place even if you fall down while hiking or get turned over in a river while canoeing. We feel that the button snap will be quite popular with the Bushcrafter crowd as well. We are also furthering our development of the kydex retention strap originally designed and developed through BHK and JRE industries. We have spent a lot of time working on and improving our kydex. We have been using our slide lock tension system for some time now on the majority

of our sheaths. We have developed a piggyback system that allows attaching a smaller knife to a larger knife giving you a great dual set up. We have also been doing a lot of custom kydex on customer supplied knives as well. We have introduced our KLMS ( kydex, leather, modular, system ) on many of our knives other than the PLSK series ones. We have been hitting a lot of the gun and knife shows where we have had an opportunity to meet many of you. If you have an idea for your perfect knife and would like to get us to build it, drop us a line at [blindhorseknives@yahoo.com](mailto:blindhorseknives@yahoo.com) and we can get you started on your way to your dream knife. Thank you all for being a part of the Blind Horse Family you are what make us what we are.

God Bless  
L.T. Wright 



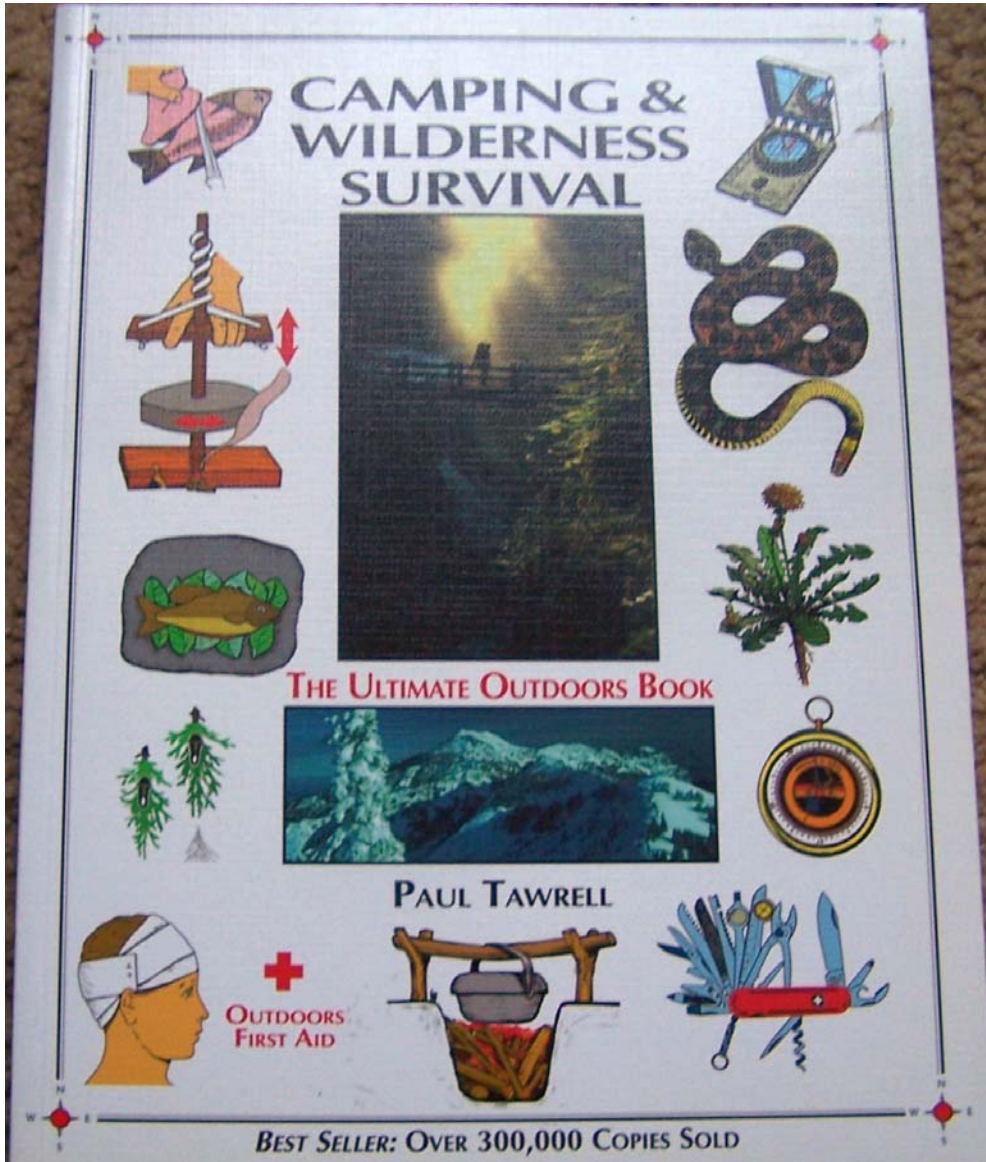
**Our new button snap bush sheath.**



# Camping & Wilderness Survival

## *by Paul Tawrell*

### Book Review by Bill Bernard



over water, in the desert, and mountainous terrain are covered. It even provides a few basics on vehicles for your trip. A variety of shelters are discussed. From a quick tarp or poncho shelter, to a sod hut which will last years, and everything in between. Fire making, water collection and purification are explained as are food sources and cooking techniques. Land navigation and a few good chapters on identifying many North American birds, mammals, reptiles and amphibians are also shown. There is much more in this hefty book but you'll just have to check it out for yourself!

I will warn you however, there are one or two bits of info which seem a bit off. For instance, the author explains how to start a campfire without matches... with a candle! The only other problem I have with this book is the fact that the section on plants only has artist drawings. I have always felt that a good color photo (even a

couple from different angles) is a must if one is trying to ID plants, especially edible ones. Don't let this dissuade you though; the vast majority of the information is quite solid for both the novice and veteran camper alike. With over 300,000 copies sold, I'm sure *Camping and Wilderness Survival* will be a great addition to your outdoor library too.

Advertised as "The ultimate outdoor book", *Camping and Wilderness Survival* might be a little big to toss in your backpack for that weekend excursion. Besides, it'll take a bit longer than a weekend to read it all! The 350 pages and 31 chapters do a pretty good job on covering a myriad of camping topics without being too overwhelming.

The first few chapters explain the basics for planning a camping trip in many different environments. Traveling during summer, winter,







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