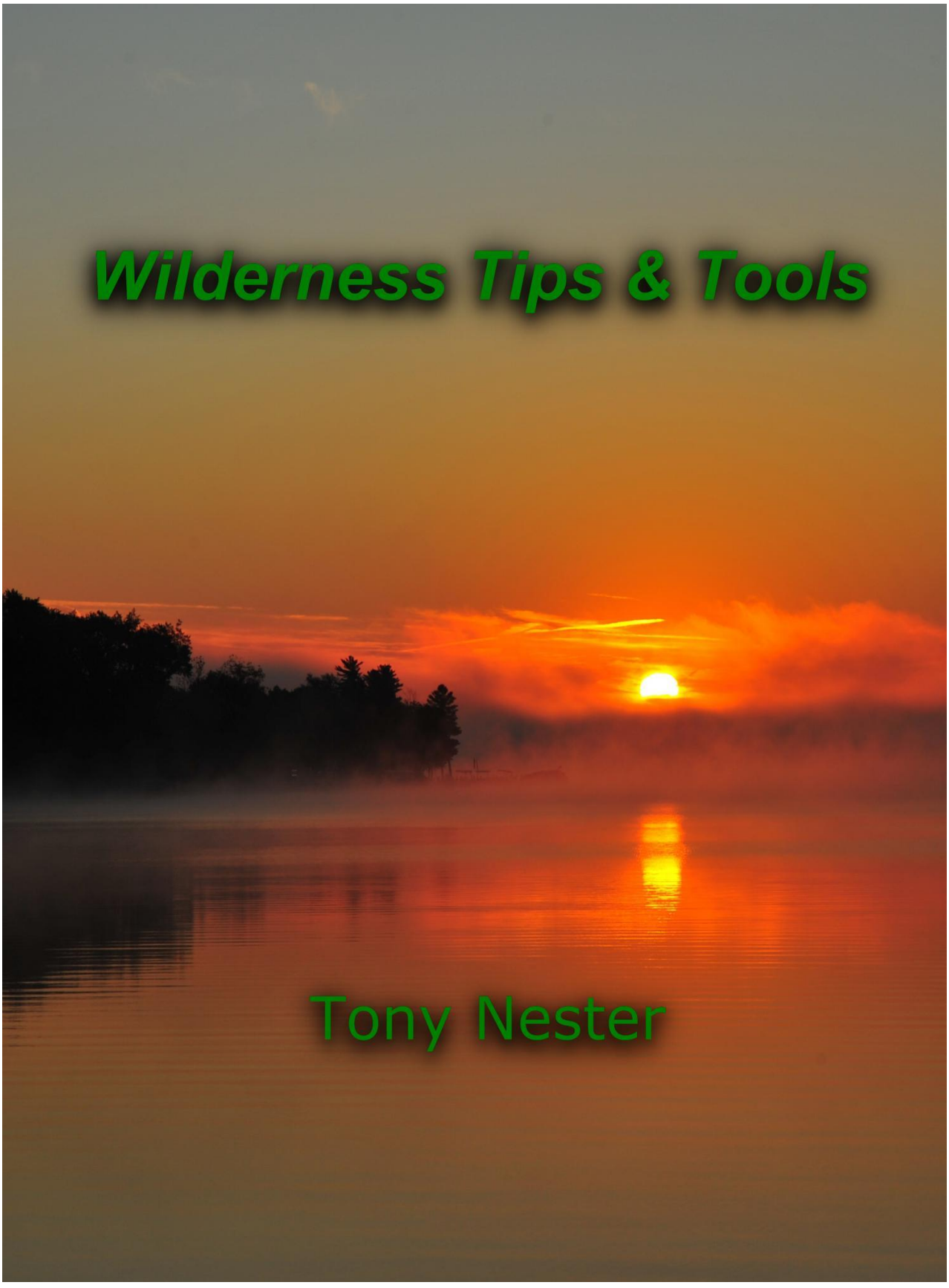
Wilderness Tips & Tools
Tony Nester

Wilderness Living Tips & Tools

By Tony Nester

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Warning

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Clothing: Your First Shelter

Dress properly in the first place and you will be better able to handle a drastic change in the weather, contend with hypothermia, and maybe even avoid expending precious calories to construct a shelter should you become lost.

Hats
Let's go top to bottom and start with headwear. A wide-brimmed hat is an essential item for wilderness travelers unless you want your face to turn into a piece of driftwood. There's a bevy of types from cowboy to Indiana Jones-style explorer hats. I have bounced back and forth over hotter months as it is a lighter fabric. During the cooler months, I opt for the oilskin Filson or a wool, *crushable* Stetson cowboy hat.

Eye Protection
Many cowboys go without them but if I can reduce the chances of getting cataracts later in life, I'll start by wearing sunglasses while afield. Goggles are also excellent and come in handy preventing a corneal abrasion when there's flying grit (different than *True Grit*).

Sunscreen
Enough said! This especially critical as you climb up in elevation. While teaching at a Desert Medicine Conference recently, I had the good fortune of speaking with one of the leading researchers on sunscreen and sunburn. He said that SPF 15 to 30 is all that's needed. The rest is largely marketing hype and adds no additional protection. If you are going to be in-and-out of the water all day, the *Bullfrog* brand is superior and provides longer-lasting coverage than the standard brands.

Bandanna or Shemagh
A shemagh is a garment many of our troops and indigenous cultures use in Africa and the Middle East for wrapping around their head and necks. They are usually made of cotton and are larger than a bandanna, at about 43"x43". This is one of my most treasured pieces of desert garb and I've used it not only as a scarf but water strainer, sling, dustmask during sandstorms, potholder around the campfire, pillow, and much more. Mostly, it keeps the sun off my neck but it can be soaked in water and draped over my hat to keep me cool while hiking.

I also have a large silk bandanna that I was given by some ranching friends and you'd be hard-pressed to find a cowboy without his protective, multi-purpose neckerchief. The latter can be purchased through western wear stores. Get it in Large. Cotton bandannas which sell for a few dollars come in a variety of colors and some have topo maps and star charts printed on

them. I usually have one lining the inside brim of my hat which acts as a sweatband and also bulks up my hat's inside if it's too loose.

Outer Shirt
Long-sleeve, lightweight cotton/poly or cotton/nylon material. These are quick-dry fabrics and don't have the hypothermia-inducing qualities associated with wearing 100% cotton in the outdoors. Columbia, 5.11, Cabelas, and Patagonia are good brands to consider.

Inner Shirt
For cooler weather, a wicking layer is essential to prevent your core from becoming chilled from sweat. Coolmax, Underarmor, silk, polypro and wool are all outstanding fabrics that will transfer your perspiration away from your body.

Gloves
Your hands are essential survival tools and you don't want to shred them on briars or thorns while gathering firewood or building a shelter. Pick up some work gloves at the hardware store or leather tactical gloves for something more durable. My favorites are the *Mechanix* brand gloves found at Home Depot for $12.

Pants
I like the 5.11 brand pants as these are a ripstop cotton/poly material and have held up well on punishing field courses over the years. The beauty of the 5.11 and BDU pants are all the cargo pockets for stowing survival gear like firestarters, signal mirror, snacks, and pocketknife. Avoid, at all costs, jeans and 100% cotton materials as these will only contribute to hypothermia.

Underwear
As with the inner-shirt, wear a wicking layer as damp cotton can be harsh on the skin long term. Boxers are much better than briefs which can chafe the groin region–and then you will be walking like you were just in a rodeo.

Socks
There's a plethora of fabrics for socks nowadays- try Thorlos or Smart-Wool. Avoid cotton athletic or tube socks unless you want more blisters than usual.

Footwear
Again, there's a lot to choose from but here are a few pointers: get ankle high or taller boots as these will help to keep spines and stickers from attaching to your socks and making life miserable; and get some decent insoles which your feet will appreciate after a long day of hiking. My preferred brand of boots is SWAT Original. One pair tends to last for about 8 months of abuse and a few hundred miles of hiking. Danner and Lowa also make excellent boots. On the low-end, but still reliable, are the Hi-Tec brand.

On overnight or multi-week trips, I will also pack along some Gold Bond powder for applying to my feet and boots at the start and finish of each day.

Down Jacket
For nine months out of the year, I carry a down jacket in my daypack as it scrunches down to the size of a grapefruit and is low-cost life-insurance against hypothermia if you get stuck out at night.

That’s about it for wilderness garb for 3-season hiking. Remember, there’s no such thing as bad weather–only inappropriate clothing!

Creating a Basic Survival Kit

Most of the lost dayhikers I've spoken with over the years, have two things in common: 1) They don't tell a soul where they are going (and thus have no "safety-net" in place) and 2) Their car keys are the only items in their pocket–there's no survival kit or emergency gear. Why, you ask? Because they are "dayhikers" who think their outing will only last for a few hours. What can happen, right–I'm just going for a thirty-minute walk? Well, Murphy is out on the trail, too, so having a few key items can go a long way to extending the sand in your hourglass if you get stuck out overnight.

I am a fan of having a layered approach to survival gear. Some of the items are kept in my pockets while I have a more extended kit in my daypack for longer outings, and then plenty of gear back in my truck. The problem with carrying a large backpack full of survival gear is that you are more likely to leave at home if you are "just going for a short hike." With this in mind, below is what I carry for short strolls with my dogs. Unless I'm toting a lot of water, nearly all of these items are spread around my pants pockets or in my jacket.

This basic kit covers the "Big 5 Priorities" of modern survival such as shelter, water purification, signaling, firemaking, and first-aid. Whether your make or purchase your own kit, it should revolve around these critical priorities.

Shelter Items

AMK Heatsheet Survival Blanket
Gloves

Water Items

Potable Aqua Iodine Tablets
Water: 2-6 quarts depending on the time of year

Firemaking Items

Spark Rod
Cottonballs with Vaseline

Signaling Items

Signal Mirror
Acme Whistle
Smartphone

First-Aid Items

AMK .3 First-Aid Kit

Miscellaneous Items

Mora Knife
Spare Prescription Glasses

When my kids are on the hike, they each have their own mini-kit consisting of a Heatsheet, Acme whistle, water bottle(s), snacks, Swiss-Army knife, spark-rod firestarter, signal mirror, and appropriate clothing.

The 5 "W's" of Building a Shelter (or even pitching a tent)

In our fieldcourses, we often discuss the importance of the Five "W's" when building a shelter. This applies not only to survival but when car-camping or backpacking. When selecting a campsite or location for a shelter take into account the following factors:

1. Weather. Don't rig up your tarp or lean-to on the edge of a forest and field or other major transition area. The wind will be more pronounced and lightning safety will be an issue during thunderstorms. Setting back your campsite even twenty yards into the forest will help minimize gusty winds. It may seem like common sense but you also want to avoid sleeping at the bottom of a canyon or arroyo not only due to flash flood concerns (yet backpackers still do this every year in Arizona!) but due to the temperature gradient. These low regions will be much colder at night and are often animal highways.

2. Wood. You are going to need limbs and debris to build a natural shelter and possibly for firewood so make camp in a region with ample resources.

3. Water. This is a survival priority for staying hydrated so set up camp a short walk away from a creek, lake, or waterhole. These areas will also provide opportunities for foraging, fishing, and catching crayfish which all come into play with a longer stay in the wilds or when attempting to live off the land.

4. **Widowmakers.** Pitch your tent out of reach of those dead standing trees!

5. ***Wigglies.*** Mice, rats, centipedes, scorpions, fire-ants, and other critters like dark, damp places and are often found in rock piles, thick brush, and boulder fields. In the desert and in the Grand Canyon, the scorpions love hanging out under cowpies and by the mule droppings at the corral! I always avoid downed, rotting logs and clusters of rocks as I've had too many encounters with creepy-crawlies in such places. If you are camping with your kids, tell them to be aware of such spots when gathering firewood and to always wear gloves as a precaution for venomous insects.

First-Aid Kits

Log enough time in the timber and you will probably be faced with a medical emergency. The two things you can do ahead of time is to get training with a reputable company like the Wilderness Medicine Institute and to carry a quality backcountry first-aid kit designed for remote medical issues. Short of that, obtain a copy of the excellent manual, *Where There is No Doctor* and digest the sections on soft-tissue injuries, hypothermia, and heat-related issues as these are the big three that afflict most outdoor explorers.

Regarding first-aid kits, purchase one from a dependable company such as NOLS or Adventure Medical Kits. These are designed by wilderness doctors and paramedics and contain above-average items. Most of these kits need to be augmented with a few extra items to round them out and I've added the following into mine.

- ACE or Vet Wrap- hard to find stretchy fabric when you need it.
- PriMed Gauze- simply the best gauze material on the market for dealing with intense bleeding.
- Triangular bandage- myriad uses for tourniquets, slings, headwraps, straining water.
- Temparin- temporary dental filling. Tea candles and chewing gum will also work.
- Benadryl- critical for bug bites & anaphylactic shock. Get the *Fast-Melt* kids version.
- Steri Strips- for closing wounds until you can get stitched up by a doctor.
- Irrigation syringe- a must have item for first-aid kits. Great for blasting the nasty germs out of wounds.
- Imodium- for diarrhea from drinking foul water or someone in the group being lax on personal hygiene.
- Tweezers- get a quality pair with thin, flat-nosed tips for removing splinters.
- Duct tape- for instant Band-Aids, covering blisters, fixing gear, and a hundred other uses.
- Wet Wipes- or something similar to assist with hygiene.
- Personal Prescription Medications- a 2-week supply of extra if you are going on a multi-week trip or remote international travel.

Will this make you into a combat medic? Absolutely not but it will equip you to better handle the injuries that are often associated with wilderness mishaps until you can get to the frontcountry.

An Adventure Medical Kits 2.0 model which will suffice for one person on a multi-day trip.

If I am traveling internationally or within the U.S. for extended periods, I also add in the following prescription items to my first-aid kit. Obtaining these involves a conversation with your family doctor about the associated hazards with the region you are heading to.

Epi-Pens: I only bring these because I guide clients in the wilds so you may not need them unless you have a history of severe (life-threatening) allergic reactions.

Broad-Spectrum Antibiotic Pills: This is to handle traveler's diarrhea or infections.

Vicodin or Similar Painkillers: If you wrench your back or bust an ankle and are two days from the nearest village clinic, you will be glad you had something stronger than Advil.

Thermoregulation or *How to Stoke Your Inner Woodstove*

When it's cold out and you're hiking or camping, there are three ways to stay warm:

1. Movement (walking, skiing, snowshoeing, etc…)
2. Proper Clothing
3. Calorie Intake

Food intake is often overlooked but this is one area that needs to be drastically increased the colder it gets. This is your excuse to chow down on high-fat/high-calorie foods which, in turn, will help keep your internal woodstove roaring.

I have had students on winter survival courses complain of being chilled in the middle of the night while they slept in the 20 degree F setting of a Quinzee in their below-zero sleeping bag. This was due to their internal furnace running out of fuel and their body failing to produce adequate metabolic heat. To help prevent this, I recommend having some trailmix, raisins, or other bite-sized snacks next to your bedroll that you can munch on in the middle of the night.

I remember a winter survival course in the sub-Arctic where we were sleeping in lean-tos around a central fire. Temps were around -40 degrees F at night while "warming up" to -10 degrees F during the day. Some nights we had sleeping bags while others we were "fire hungry." Meals were provided and we kept track of our food intake which averaged around 9000 calories a day per person! Breakfast and lunch consisted of a bagel with crème cheese, a slice of ham, and a slab of butter. For dinner we had a large one-pot dish with a block of cheese, 5 lb. bag of pasta, block of butter, and several rabbits.

Additionally, during breaks, we often downed the classic hypothermia-prevention elixir which was a cup of hot chocolate with a teaspoon of butter. Now, all of this would seem like the ultimate nightmare-diet to a cardiologist but it provided the necessary fuel to keep our internal woodstoves roaring given the outside temps and our demanding daily workload.

Some other foods to consider are cheese and salami. These should be pre-cut and sorted in Ziplocs prior to your trip as it will be a challenge to cut in the field. For trips where you can heat up a pot of water over the campfire, packets of instant soup or bouillon cubes are a great addition. These will help you rehydrate, replenish salts lost to sweating, and warm you up at the same time.

Lastly, if you want a long-lasting and easy-to-consume food to stow in your vehicle for the winter, buy a package of shortbread cookies– what's not to like about a snack made solely from sugar, flour, and butter.

The Yellow Lifesaver

Resinous wood is king in wet-weather. Wood such as pine, spruce, and fir piled up on a fire in inclement weather will help to sustain itself during a downpour. Look for wood that is saturated with gooey sap or has yellow streaks present. This stuff is impervious to moisture and will ignite even when wet. Avoid hardwoods like oaks, maples, birch, hickory, etc…. The latter are great for providing long-lasting coals for campfire cookery but won't burn furiously when wet.

In the forests near where I live in northern Arizona, we rely on dead Ponderosa Pine trees during our rainy season (yes, we get rain here and lots of it!). It has characteristic yellow streaks that indicate the presence of resin in the wood. In fact, there is probably more resin than actual wood as evidenced by the absence of coals in the firepit hours after burning. We have even gathered limbs sitting in puddles or snowbanks for days and ignited it within minutes.

Resinous wood is found the world over so look to this when the skies are grey and the night is stormy. Search for old stumps in pine or spruce forests or use dead-standing trees.

The shaving technique in the accompanying photos is a woodcraft skill that you can practice in your backyard. Keep an eye out for that yellow-tinged wood on your next hike and try it for firestarting. It can be a real lifesaver.

Place your knife almost parallel to the wood and slice off wafer-thin pieces.

Strive for a fistful of shavings.

Place the resinous shavings in a nest of grass or shredded bark. The log to the rear provides oxygen flow for the wood that will be stacked on after ignition.

Remember using a lighter ain't cheating, partner. You're only cheating death!

After igniting the shavings, place several fistfuls of pencil-sized kindling on the fire.

Now you're ready to roast up that groundhog hoagie.

One final tip for a wet-weather environment if resinous wood is in short supply: gather sections from a dead-standing tree over 4" in diameter and split it down the middle with your knife or ax. The interior wood on such a tree will be dry and can be shaved into fine pieces to ignite your fire and then the rest of the log can be burned.

You need fire the most when it is the hardest to get so be in the habit of always carrying 3 firestarters (Stormproof matches, spark rod, and a lighter) along with a vial of cotton balls smeared with Vaseline. Fire=Life during the colder months of the year.

Rescued with a Flash

Each year we hear stories in the news about lost hikers who light up a signal fire to expedite their rescue and then end up torching the forest instead. With much of the Western U.S. a tinderbox, my advice is to carry a quality (glass) signal mirror and learn how to use it. This is something that takes a few minutes of practice in your backyard.

A decent signal mirror will run you $10 and can shoot a flash for over 20 miles on a clear day. Most importantly, it doesn't endanger the forest and the dozens of searchers on the ground headed your way. Signal fires should only be considered when the ground is covered with snow; it's the rainy season; it's a non-windy day; and you have exhausted all other options.

Since survival is all about being prepared, carry a signal mirror and whistle, at the very least, and you'll have a much easier time drawing Search-and-Rescue personnel to you in the event you become stranded in the wilds. If you want to augment these basic tools then invest in an ACR Personal Location Beacon (PLB) or an inReach DeLorme device.

Long-Term Wilderness Living Considerations

Life in the wilds is about sweat and calories. You only need a handful of bush essentials to transition from surviving to living and those few tools can be critical. The following list is not about 72-hour survival kits or Every-Day Carry (EDC). Instead, this is gear that will augment such kits and can be useful for long-term life in the wilds where resupply is limited, non-existent, or in an extended grid-down situation in the city.

Having spent extended periods of time ranging from 21-90 days living off the land in wild regions or under primitive conditions (no sleeping bag, tent, stove, firearms, or food drops) I've jotted down a few things that were discovered along the way.

1. A sleeping bag is a great asset for reducing calorie expenditure and allowing the body to recuperate during those precious 8-hours of warmth at night. Being on the move in the constant search for food and then having to build a shelter wears on you physically after a while and eats up valuable time that can be spent on making more traps, hunting, gear repair and so on. I will take a small, down sleeping bag any day as part of my survival kit. Otherwise, I am a real fan of the Wiggy's brand line of bags which have outlasted all of my other sleeping bags over the years.

2. A poncho and 550 cord for making shelters, windbreaks, sun-protection, rain-collection, carrying bedding material (pine needles, leaves), and improvised pack. This will provide you with so many shelter variations. I prefer to string mine up in a diamond shelter or if wind is an issue, then as an A-frame or pup-tent style. The poncho and 550 are companion items.

3. Quality footwear is essential. You can abuse your feet with poor footwear on a short dayhike near home but long-term, don't skimp on quality boots. If you lose your ability to move, you lose your ability to procure food and also hamper the efforts of the rest of the group while they wait on you to heal up. Find footwear that works for you and make sure it's well broken in. My preferred for the past ten years are the SWAT Original Boots and they continue to serve me well but it took many different brands to find one that suits my particular set of feet. You probably have your favorites too. For winter weather, Sorel Pacboots or Steger Mukluks are hard to beat. Lastly, as any combat soldier will tell you, the inserts are as important as the boot. Toss out the factory inserts and spend an extra $20 to get some decent shock-absorbing inserts that match your arch and foot contours. *SuperFeet* is one brand to consider.

4. Leather gloves. This is same as protecting your feet– you want to have a few pairs of work gloves to reduce the punishment of your primary tools: your hands. For years I went without ever using gloves while living and working outside. Your hands will develop a tough exterior after weeks in the elements but it only takes one mishap and then your ability to work is severely comprised. I once suffered a nasty gash deep into the muscle of my palm while breaking up juniper branches for firewood and had to do everything one-handed for the next four days. A lightweight pair of garden-type or leather gloves is a must-have item in my kit now.

5. Spark-rod firestarter: 500 fires in one rod, works when wet, works when you are down to gross motor skills from hypothermia, works one-handed, just plain WORKS–Enough said!

6. Small tin of Bag-Balm salve. Long-term you feel the effects of the wind and constant campfire heat on your dried out hands, face, and cracked lips especially during the winter. Sure I don't need this to survive, but it sure helps the hands recuperate from constant punishment and cracks. Heck, my ranching friends use it every day so don't worry about losing your rugged, calloused hands–it's for maintenance of such hands.

7. A small cooking pot. Yes, you can coal-burn bowls, use gourd containers, and cook a rabbit on a spit but these methods take time to become proficient. I have used 64-ounce coffee cans for all of my meals on several 21-day survival trips. 32-ounce pineapple juice containers are a good size for one person and will allow you to nest a Nalgene water bottle inside. A handle of (22 gauge) picture wire or a metal coat-hanger affixed to the can will give you a handle and allow the pot to be suspended over the fire. Short of that I have my metal canteen cup that is always in my kit. Zebra billy cans are a good investment if you want a durable pot made of stainless steel.

8. Needle and Kevlar thread. I've temporarily mended torn clothes and boots before with duct tape which is good for a day but, long-term, it helps to have a small sewing needle and a few yards of Kevlar thread. The last thing you want is grit seeping in through a split in your leather boots or gloves comprising your skin over time. The Inuit in the Arctic thought a simple sewing kit important enough that every man, woman, and child carried a bone needle and shredded caribou tendon-thread for repairing damaged footwear and parkas. This was critical in an environment where flesh can freeze in seconds during the dead of winter. I carry two heavy-duty sewing needles in my waterproof match case for ease of extracting when needed. The inner strands of 550 cord can also work for quickie-thread but the Kevlar material is finer, mighty tough, and affordable.

9. Tabasco, brown sugar, and bouillon cubes are must-have ingredients to spiff up meals of a repetitive nature (such as rabbit or squirrel for the 9th night in a row). Out of these three condiments, I'll grab the Tabasco first if I had to choose. We ran out of this once towards the end of a month-long trip and all we talked about at dinner for the last three days was that red elixir and the magic it imparted to our meals. Both Tabasco and bouillon will also provide much-needed sodium to your diet.

10. If weight and continual movement are not an issue such as when holing up in a permanent basecamp for a few weeks, the following tools are most helpful:

-A bucksaw or a folding pruning saw. A Dandy or a Laplander saw are both excellent brands.

-A Japanese whetstone for honing knives and other camp blades

-A collapsible woodstove. It sure is nice to have one in an earth shelter, shack, or canvas tent. You will sleep better, feel better, and burn fewer calories gathering firewood compared with using a campfire. Again, this is for a fixed basecamp. I have a mini-galvanized stove that is 20" long by 12" wide and 10" high and have used this in small hogans as the primary heat source. It has been with me on extended outings and even winter treks via a toboggan. I've slept out on many a cold night for weeks on end with a lean-to/campfire combo and other primitive shelters and they eat wood constantly–on the average of ½ cord of wood and that's when it's not even below zero! A small woodstove is a critical piece of gear for a long-term scenario in a permanent basecamp.

Thank you for your interest in my books. Please feel free to email me if you have any survival-related questions or if I can help with anything. My other eBooks on survival are also available on Amazon, Nook, and Kobo platforms.

Enjoy the Wilds!

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About the Author: Tony Nester is the author of numerous books and DVDs on survival. His school *Ancient Pathways* is the primary provider of survival training for the Military Special Operations community and he has served as a consultant for the NTSB, FAA, Travel Channel, NY Times, Outside Magazine, and the film *Into the Wild.* When he's not trying to stay upright on a paddle board, he lives in a strawbale house in Flagstaff, AZ. For information on Tony's books, gear, or bushcraft courses, visit http://www.apathways.com