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Never too Prepared

Many years ago. I encountered a motorcyclist

who'd wiped out after his bike collided with a deer on a country road. I was the first to arrive on the scene. His face was badly gored, and his clavicle was broken. Beyond that, his motorcycle had caught fire right before I arrived. Though a 911 call was required, the rider walked away with only minor injuries. Still, the accident could've been deadly.

An acquaintance plummeted from a tree while bowhunting last fall. His injuries were concentrated to his shoulder, a major component to shooting a bow. He ably shoots a crossbow, but pain and a slow recovery prevent him from comfortably shooting a recurve or compound bow, which is his passion. While visiting with him recently, he explained that his doctor believes he'll be able to shoot a bow by September. He's quite fortunate the fall didn't cause further damage or even death.

Another acquaintance's treestand accident had more difficult consequences. His rocky landing shattered vertebrae, and he lie in agony for a few hours before his father found him and the EMT team arrived. Though spoken carefully and sympathetically, his doctor's words, "You most likely won't walk ever again," were deafening. The young man's fight through rehab was a long journey filled with trials, tears and severe pain, but he never gave up, and his family and friends prayed for the unimaginable: the ability to walk again. Today, he not only shoots a bow and crossbow, but he walks. too.

A former church-youth-group student of mine recently drowned while attempting to save struggling swimmers. He saved the first one, according to an online-news source, but he and the second victim both drowned as he tried making the second rescue. He was only 24 years old, and "selfless" best describes his character. My heart hurts for his family and his fiancée who now mourn his loss.

I hope these stories don't conjure tragic memories of a lost loved one or a traumatic accident you encountered yourself. Instead, I hope they serve as lessons that we cannot over-prepare for dangers inherent to our outdoor activities.

When it comes to hunting from treestands, we must always wear safety harnesses to prevent a deadly plummet. One of the fall victims I mentioned was wearing a harness, but he wasn't yet strapped to the tree, and the other wasn't wearing a harness at all. He wasn't even hunting. He was simply hanging a treestand—a seemingly harmless act that nearly cost him his life. In both cases, properly using a safety harness could've prevented the falls and their consequences altogether.

Meanwhile, the motorcyclist I referenced wasn't wearing a helmet, and was traveling at or over the 55-mph speed limit when he collided with the deer. The deer died instantly from the blow, and the rider easily could have been ejected and landed headfirst on the pavement, dying instantly. Of course, he walked away with only cuts, bruises and a couple of breaks, but many other riders not wearing helmets—and some who were wearing helmets—have died or been paralyzed from similar accidents. He was beyond blessed.



As the drowning victim proves, there are always unforeseen emergency events that arise when we least expect them. Two people were going to drown, and the young man dove in to save them at the expense of his own life. He had to act immediately, with or without a lifejacket.

However, the treestand falls I noted prove that preparation can prevent many accidents altogether. And, the motorcyclist's deer run-in, though not preventable, could've been handled more safely by wearing a helmet and riding slower, given the nighttime conditions.

While we're discussing safety and preparations, take a few moments to read Tracy Breen's feature, "Backwoods Safety" (pg. 40), in which he outlines first-aid fundamentals and tips for surviving wilderness accidents. You'll find it beneficial, and should you find yourself in a predicament, you'll know exactly what to do.

The pioneer life is inherently dangerous, but there are ways to reduce the risks of accidents or prevent them altogether. As fall hunting and other outdoor-recreation seasons approach, let's all ramp up our safety precautions and preparations. Let's also educate future generations so they put safety first, too. It's our duty.

DARRON MCDOUGAL

GOOGLES AUGUST/SEPTEMBER 2016

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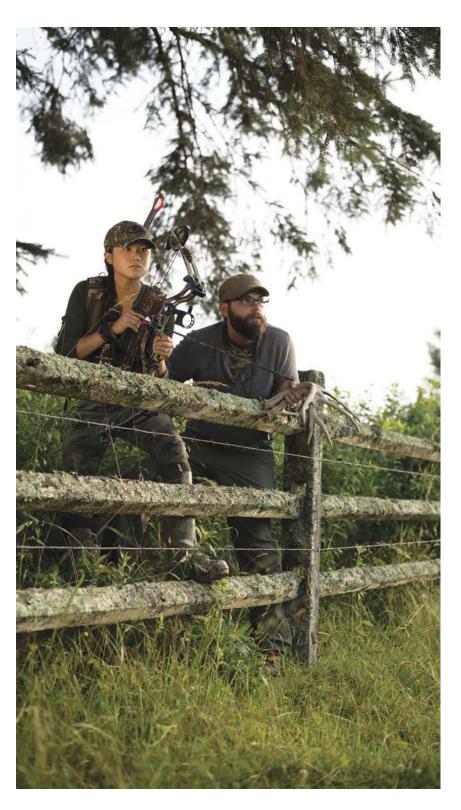


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news



Spearheads Coalition to Modernize Pittman-Robertson Act

The Archery Trade Association (ATA) is working with 36 other hunting and conservation organizations to update the way state wildlife agencies can use federal funding, a move that would strengthen recruitment efforts in archery and bowhunting.

The vehicle for those changes is the Pittman-Robertson Modernization Act-H.R. 4818 in the House and S. 2690 in the Senate—which would change how conservation dollars generated by federal excise taxes (FET) can be used by state wildlife agencies. Pittman-Robertson taxes are collected in part through sales of archery equipment. State wildlife agencies currently are restricted on how they use Pittman-Robertson funds for hunter recruitment. With the exception of some hunter-education activities and other minor recruitment efforts approved in 2000, the law's guidelines haven't changed since its enactment in 1937.

These revisions to the Pittman-Robertson Act (as proposed in H.R. 4818 and S. 2690) wouldn't change how FET are charged or collected, they would simply give state wildlife agencies the option of using Pittman-Robertson funds for recruitment, an area in need of financial support.

"Many in our industry are feeling the recent downturn in hunting participation, and they're very concerned about its impact on bowhunting," said Jay McAninch, ATA president/CEO. "This legislation is a major step in reversing those declines. Every individual in every

one of our companies needs to send a personal e-mail to their senators and congressional representatives, and follow up with a call to their offices to ask if they will co-sponsor these bills."

McAninch emphasized this urgent need for action by ATA members. "Many of our industry members have never engaged in the political process, but with the industry in a downturn, now is the time to ask for help," he said. "If not now, then when will we take action to build a better future for archery and bowhunting?

"Our industry, all 50 state wildlife agencies and all shooting, hunting and conservation organizations recognize the need to aggressively recruit, retain and reengage hunters and recreational shooters," McAninch continued.

He also noted that this change to the Pittman-Robertson Act would allow state wildlife agencies to use their primary funding source—FET paid by the archery industry—to recruit and train the next generation of archers and bowhunters. In addition, the agencies could continue working to manage, protect and conserve the nation's wildlife resources.

Urge your local congressperson and/or senator to support H.R. 4818 and S. 2690. Log on to house.gov/representatives/find to locate your area's congressional representative and

senate.gov/general/contact_information /senators for your state senators' contact information.



Potterfield Delivers Keynote at Kentucky Performance Excellence Conference

The Kentucky Center for Performance Excellence (KYCPE) recently welcomed Larry Potterfield, founder and CEO of MidwayUSA, to its 11th annual Conference and Awards Celebration where he delivered the keynote speech titled, "Things we Learned Along the Way." The 2016 KYCPE conference was held June 9-10 at the Griffin Gate Marriot in Lexington, Kentucky.

Having led his organization, MidwayUSA, to become the recipient of the Baldrige National Quality Award in both 2009 and 2015, Potterfield welcomed the opportunity to share lessons learned from MidwayUSA's pursuit of performance excellence. His speech covered several important components of organizational leadership including vision, values, goals, culture and communication. In addition to hearing from National Performance Excellence award-winning organizations from 2015, conference guests helped celebrate the interest, commitment and achievement of five Kentucky organizations on their journey to excellence. A panel discussion and several training sessions were available for attendees, including a breakout session led by Potterfield titled "Workforce Engagement Starts With Values."

Department Provides Tips to Prevent Spread of Aquatic Invasive Species

The Maryland Department of Natural Resources has confirmed the presence of zebra mussels, an invasive species of shellfish, attached to the propeller and outboard motor of a pontoon boat attempting to launch at Deep Creek Lake State Park. Launch stewards, conducting voluntary boat inspections, identified the mussels earlier this month on a vessel last used on the Monongahela River, where zebra mussels are established. The stewards were able to intercept the boat prior to launch and removed all visible zebra mussels for examination and inspection.

"Through our efforts, we were able to successfully prevent the introduction of an aquatic invasive species into Deep Creek Lake," Natural Resources Secretary Mark Belton said. "While we were successful this time, we need every Marylander to remain attentive and vigilant as they transport themselves, their equipment and their vessels from one body of water to another."

Zebra mussels are small, filter-feeding bivalves native to the Black and Caspian seas that were introduced into the Great Lakes in the mid-'80s. Since then the species has spread throughout the Midwest, Northeast and parts of the western United States. The spread of zebra mussels has caused profound economic and environmental damage as they colonize hard surfaces in high densities



affecting industrial and public equipment and altering aquatic ecosystems and habitat.

The mussels were intercepted as part of the Deep Creek Lake Launch Steward Program. The program, funded by the Maryland Park Service, is a cooperative partnership with Garrett College aimed at increasing public awareness of the threats posed by aquatic invasive species and reducing the risk of their introduction into the lake. Since the program began in 2014, stewards have offered voluntary inspections of boats and trailers, and disseminated information on steps boaters can take to reduce the risk of spreading invasive species.

The threat of zebra mussels entering Maryland waterways emphasizes the important role recreational anglers, boaters and others play in preventing the introduction and spread of aquatic invasive species. MP



Cut costs and chemicals with clean, fresh results

> By Darryl Quidort

family that does a lot of laundry could practically go broke buying detergent and fabric softener. Fortunately, there's an alternative to purchasing commercial laundry products. By making your own laundry detergent and fabric softener from readily available components, you can wash your family's clothes for a third or fourth of retail-priced commercial laundry detergents.

When you stop to think about it, detergent isn't exactly rocket science; people have been making it since pioneer times. I'm not talking about lye soap made from bear fat and campfire ashes or anything like that, though. I'm talking about buying the components at a local store—often in the same aisle where you buy commercial detergents—and mixing up your own laundry detergent for a fraction of the price.

Know the Basics

Homemade detergent can be made as a liquid or a powder. We use the powder form at our house. There are several recipes for making different laundry soaps, but they are all fundamentally the same. There are four main ingredients: 20 Mule Team borax, washing soda laundry booster, regular soap and lavender essential oil. Borax cleans and also softens water; washing soda cuts grease and neutralizes odors; soap is a stain remover, and lavender just makes the laundry smell nice and fresh.





% do-it-yourself

Laundry Detergent Recipe

Follow the steps below to make your own powdered laundry detergent.

- Shave a bar of Fels-Naptha or Castile soap on a cheese grater. Then, pulverize the shavings into very small particles using a blender.
- 2 Add 15 drops of lavender essential oil.
- 3 Pulverize it again.
- Mix together 1 cup borax and 1 cup washing soda in a bowl.
- Add the pulverized soap to the borax and washing soda mixture.

Storage and Use

Store your detergent in an airtight container. On wash day, use 2 heaping tablespoons of detergent per laundry load. We've found our homemade detergent to be just as effective as commercial laundry detergent. Homemade detergents don't suds up like store-bought detergents do, especially in hard water; although, you can add 1 cup baking soda to the mixture to produce more suds.

Fabric Softener Recipe

Liquid fabric softener can also be made at home for a fraction of the cost of the commercial variety. There are only three ingredients, and one of them comes right from your tap.

Simply mix together the following:

5 cups hot water

1 cup of the cheapest hair conditioner you can find

3 cups white vinegar

Mix the water and hair conditioner together, then add the vinegar. Use ¼ cup of the fabric softener per laundry load.

When my family switched to using homemade laundry detergent, we didn't notice any difference in the results of our laundry. Our clothes seemed just as clean and fresh as before. The final test came when we used homemade detergent to wash the dog's bed, an old quilt that our Labrador retriever sleeps on. To our pleasure, the old quilt came out of the wash looking and smelling great. Even the dog seemed pleased. MP



Shave a bar of soap on a cheese grater, then pulverize the shavings in a blender.



Add 1 cup of washing soda to the bowl.



Mix all four ingredients together to make your own laundry detergent.



Add 15 drops of lavender essential oil to the pulverized soap.



Add I cup borax to a large bowl.



Store the homemade laundry detergent in an airtight container.

review



NIKON PROSTAFF 3i Specifications

Measurement Range: 8-650 yards
Increment Reading: .1 yard
Magnification: 6x
Angular Field of View (Real): 7.50
Angular Field of View (Apparent): 430
Viewfinder Display: Meters/Yards
Eye Relief: 18.3mm
Power Source: 1 CR2 lithium battery
Diopter Adjustment: +/- 40
Weight w/o Batteries: 5.6 oz
Objective Diameter: 21mm
Exit Pupil: 3.5mm
Size (L x W x H): 4.4x1.4x 2.8 inches
Angle Compensation: Yes
Tru Target Technology: Yes

Contact: (800) 645-6687; nikonusa.com

MSRP: \$229.95

Why Guess When You Can Know?

Nikon PROSTAFF 3i

WHEN THE VIBRANT KANSAS GOBBLER COASTED INTO MY SIGHT PICTURE, I KNEW EXACTLY WHICH PIN TO SETTLE ON HIM. I brought my top pin down onto the quartering-away bird, touched my release trigger, and watched my arrow zip through the feathery target. The Rio Grande gobbler collapsed seconds later. Ranging my decoys and other objects prior to my bird's arrival helped me know the distance and shoot confidently.

I consider myself a hardcore hunter, and I understand the value and confidence of knowing my target's distance before drawing my bow or flicking off my safety. A quality rangefinder is undeniably one of a hunter's greatest assets. It reduces, even eliminates, distance guesswork. During the aforementioned Kansas turkey hunt, I employed Nikon's PROSTAFF 3i.

About Nikon

Nikon is a renowned household brand in the sport-optics sector, staking its reputation on clarity, functionality and performance. Of course, all of these qualities usually translate to steep prices. However, Nikon offers products in various price ranges to meet every consumer's needs. In fact, many Nikon binoculars and rangefinders are quite affordable.

Meet the PROSTAFF 3i

One example of this value-meetsperformance marriage is Nikon's PROSTAFF 3i rangefinder. This pocket-sized rangefinder houses state-of-the-art technology that makes it a true standout in its category with an MSRP of \$229.95

ID Technology

The PROSTAFF 3i incorporates Nikon's angle-compensating ID (incline/decline) Technology. What many hunters don't understand is that steep uphill and downhill shots change distance. In other words, if you range a target or game animal higher or lower in elevation than where you're standing using a rangefinder without angle compensation, you'll get an inaccurate reading. With the PROSTAFF 3i, you'll get the

exact shoot-for distance, which eliminates guesswork and helps you shoot confidently in varied terrain.

Crystal-Clear Glass

I can't stand eye strain while operating optics, be they binoculars or rangefinders. The PROSTAFF 3i doesn't disappoint. It features Nikon's legendary multicoated optics, which provide strain-free viewing with 18mm eye relief. Plus, the glass is fogproof and waterproof so you can operate the 3i in even the wickedest conditions. A rubber eyecup ensures outstanding comfort.

Simplicity

While testing the PROSTAFF 3i during my recent Kansas turkey hunt, I appreciated its ergonomic profile, which fit my hand flawlessly; nothing is awkward about handling it, even during hunting situations. I also liked that it is ultra-compact and features single-button operation. The LCD display delivers clutter-free readouts for quick, easy reference.

A mode button allows shooters to switch between meters and yards, which makes it perfect for hunters abroad and domestic hunters alike. The 3i also has a scan feature, which delivers instant distance readings by holding down the power button as you scan from target to target. This would be particularly beneficial in hunting situations where a game animal is moving at a coming-toward or going-away angle by helping you know when the animal enters or leaves your effective shooting range.

Closing Comments

Being an outdoor journalist has brought me into contact with many rangefinders. Most are all right, some are fantastic. Other than incorporating illuminated distance readings, and perhaps rubberizing the rangefinder body for soundproofing reasons, I see nothing else for Nikon to improve on with this outstanding rangefinder. For \$229.95, those are minor things I can live with. Overall, it's a great-performing rangefinder with outstanding accuracy.

—Darron McDougal

COOK IN A CAN

A scaled-down version of the CanCooker Original, the CanCooker Jr. is designed to feed families or groups of up to eight with its 2-gallon capacity. The secret to the CanCooker is its ability to steam your meal, keeping it tender and moist. A high-temp silicone gasket traps steam while water is heated to boiling, then a tiny port on the lid releases steam slowly to relieve excess pressure and optimize the CanCooker's steaming process. Heavy-duty riveted handles are sturdy for easy carrying, and safety clamps lock the lid in place.

MSRP: \$59.99 without CanCooker Rack; \$69.98 with CanCooker Rack

> CANCOOKER.COM





INVESTMENT PROTECTION

Secure and protect your expensive firearms with Browning's all-new Beast safe. Designed to keep out fire and thieves, the Beast features a 12-gauge steel body and a 1-inch formed door with a partial inner plate. Equipped with ThermaBlock fire protection with a 1,400°F/60-minute rating, fires are no match for this safe. The interior DPX storage system stores 10 long guns on the door back, and the high-capacity barrel rack provides easy access to 41 long guns. Total firearm capacity is 56, depending upon the size. Browning's exclusive cantilevered modular shelving adjusts to the owner's preference or to accommodate valuables or other items. MSRP: \$2,229 with S&G mechanical lock; \$2,299 with SecuRam electronic lock

BROWNING.COM



For 2016, Winchester Repeating Arms added the XPR Hunter bolt-action rifle to its lineup. It features a polymer stock in Mossy Oak Break-Up Country and textured panels for exceptional control in wet

conditions. An M.O.A. trigger system produces clean, crisp pulls with zero take-up, zero creep and zero over-travel. Winchester offers the XPR in 11 calibers. Short-action calibers include a 22-inch barrel, shortmagnum long-action calibers, a 24-inch barrel and long-action magnum calibers, a 26-inch barrel. Mass weights range between 6.75-7.25 pounds. A detachable box magazine adds convenience, and an Inflex Technology recoil pad reduces felt recoil on the hard-hitting calibers. MSRP: \$599.99

> WINCHESTERGUNS.COM



Bradford Knives' Guardian5, featuring the Nimbus finish and OD Green G10 scales, includes a Kydex sheath and boasts a full tang and cutting-edge technology. Built for extreme every day use, the knife is 9.8 inches long overall, and the blade measures 5.5 inches. A 1/2-inch-thick handle offers a secure grip, and the knife is available in 17 different handle options. The Guardian5's .200-inch-thick blade redefines durability. Bradford Knives are satisfaction guaranteed and include the company's quality promise, "made to use, made to last and made in the U.S.A." MSRP: \$239

> BRADFORDKNIVES.COM

TWO-IN-ONE PACK

Alps Outdoor Z offers Rocky Mountain Elk Foundation (RMEF) earmarked gear, and its new Switchback X leads the pack. A true two-in-one, this fanny pack expands into a daypack for the ultimate versatility. Lycra shoulder straps provide exceptional comfort, and an adjustable/removable bow hook lets you hang your bow while glassing, calling or resting. 1680D Nylon Ballistics are used throughout to increase strength, and Hypalon is used at the lashing points. The fanny pack has an 800-cubic-inch capacity, while the day pack has a 1,900-cubic-inch capacity for a total of 2,700 cubic storage inches. Unloaded, the pack weighs merely 3 pounds 10 ounces. MSRP: \$149.99

> ALPSOUTDOORZ.COM



LIFELIKE PRACTICE

Morrell is a leading target manufacturer, and for 2016, it introduced its life-size Bionic Bear. For field points only, the Bionic Bear features easy arrow removal and maximum arrow-stopping power with its patented design. A replacement cover is available, and port holes in the midsection allow easy repacking. This type of functionality is why many of the world's professional hunters choose Morrell.

MSRP: \$279.99

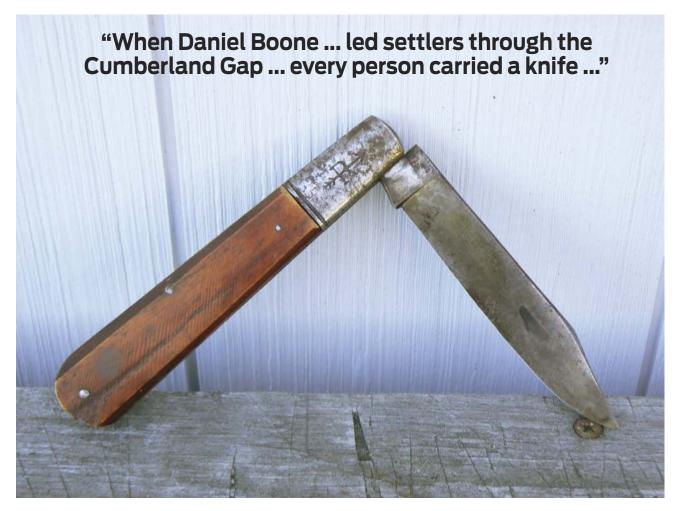
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Pocketknives

My father gave me my first pocketknife when I was about 7 years old. He taught me the value and responsibility of carrying a knife. He told me, "If a man has a knife and a way to make a fire, he can survive anything." While that knife and my father are both long gone, those words resonate today. I still carry a pocketknife everywhere I go, and my Swiss Army knife is my favorite.

What is a pocketknife's purpose? First, we must determine the differences between a pocketknife and a folding knife. A pocketknife is designed to fold to be safely carried in the pocket, and they usually have smaller blades. Folding knives are usually just folding versions of fixed-blade knives and are often carried in a case on your belt. They usually have full-size blades, like their fixed-blade cousins. Pocketknives usually have multiple blades and sometimes additional tools. A folding knife usually only has one large blade and no additional tools.

My pocketknife is my go-to tool. I've done nearly everything imaginable with my Swiss Army knife. I've stripped plastic off wiring, carved fishing lures and cut more baling twine



than I care to remember. I've used it to clean fish and small game in the field, and even opened the rogue bottle of beer that didn't have a twist-off cap. There are few tasks this tool can't perform in a pinch.

I do own one pocketknife that has no purpose at all except to keep me connected to my father. My father was a huge NASCAR fan, and I was able to secure a limited-edition Remington Racing Team pocketknife, which I gave to him. That knife never came out of the box; he kept it in his nightstand next to his bed. When he passed away, I inherited the knife, and today, it's still in its box in my nightstand.

Folding Knives

Folding knives are by nature easily carried and concealed. They're used for both hunting and self-defense. You won't find many people using them to strip plastic off wires or carve fishing lures.

I own an old Barlow-style folding knife produced by the Russell Company in the early 1900s. My aunt gave it to me when my Uncle Bob died. It was his favorite knife, and she gave it to me with one stipulation: I had to use it. To honor his and her wishes, that knife has a

(above) Heavy-bladed combat/survival knives, like the Ontario Knife Company Air Force Survival knife (left) and the Gerber Strongarm (right), are good examples of knives everyone should carry in their pack.

(opposite, top) Knife manufacturers don't make them like this anymore.

(opposite, bottom) A sharp knife makes short work of a mess of trout.

permanent place in my pack to this day. With bone-handle grips and a carbon-steel blade, this knife is exceptional. I've cleaned more than my fair share of trout and small game with it, and every time I use it, I can feel my uncle with me.

Fixed-Blade Knives

Many knives fall into this category. There are hunting knives, military-style combat/survival knives and fillet knives, each having its own purpose.

My first fixed-blade knife was a hunting knife given to me by my great-uncle Dana. Uncle Dana, an avid hunter and angler, was my father's uncle. Every visit with him was filled with stories of his adventures, and as stories often do, they got better each time he told them.

During one visit, we started going through his old gear like we always did. As he explained his stuff, he came to an old KA-BAR Little Finn. After telling me about the knife, he handed it to me. For the longest time, I carried that knife on every hunting and fishing trip I took. I still have that knife, though I've retired it.

My next fixed-blade knife was also a hunting knife, and it's the one I still carry on every





hunting trip. It's a 40-year-old Schrade Old Timer that I got for free by subscribing to a popular magazine when I was about 14 years old. With a carbon-steel blade, this knife, like the KA-BAR, holds an edge no matter what you put it through. I use it for heavy work, like field-dressing deer. That is what it was designed to do, and it performs perfectly.

Heavy-Blade Knives

Like the earlier pioneers whose knives had to perform multiple tasks, many people today have heavy-bladed knives. These knives are dual-purpose tools, and can be used for both self-defense and survival situations. I have a couple of knives in this style, one of which served me in the past and one that serves me today.

When I joined the U.S. Army at age 17, my mother gifted me an Ontario Knife Company Air Force Survival knife. It was my constant companion during my 12 years of military service. When I left the Army, it continued to serve me while strapped onto my survival bag. After 40 years of use, I finally retired the knife and replaced it with a Gerber Strongarm. The Strongarm isn't too heavy, yet it's heavy and

(above) Hunting knives, like the Schrade Old Timer (left) and KA-BAR Little Finn (right), are reliable American-made knives. Today, Schrade knives are made in China.

(above, center) Ulu with caribou-antler handle

(opposite, right) The long, thin, flexible and strong blade of a fillet knife, like this Gerber Gator, makes processing fish a breeze. strong enough to perform its tasks. I feel very comfortable with the Strongarm strapped to my pack.

Both the Air Force Survival knife and the Gerber Strongarm fit the bill for survival and combat applications. Both will split small pieces of firewood or even chop wood to build a shelter. They aren't designed for hunting or carving fishing lures, though I'm sure they'd do those jobs if they were your only choices. This style of knife is the workhorse of the knife world.

Fillet Knives

Fillet knives, unlike hunting knives or heavy-bladed survival-type knives, have strong, thin and flexible blades designed to bend a little without breaking. I own two really good fillet knives, one made by Rapala and the other by Gerber.

The Rapala is a small knife with a blade that's only about 5 inches long. The Gerber Gator is a longer knife with a 7-inch blade. The Rapala is perfect for filleting trout and panfish, while the Gator easily handles larger jobs like lake trout, salmon and redfish. I've also found the Rapala perfect for dressing out grouse, turkey and pheasants.



Ulu

The last knife I have and one I use often is the ulu. I'd never heard of an ulu until I spent some time in Alaska. The ulu is a tool very popular with the native people of Alaska and Arctic Canada. The word "ulu" roughly translates into "woman's knife," referencing that the women do most of the work of skinning and butchering game.

The ulu comes in various sizes and has a half-circle blade with the handle positioned directly above it. By design, this knife is manipulated by wrist movement and, unlike traditional knives, utilizes the entire blade to improve efficiency. I use my ulu for most of my game-processing needs once I get the animal home. I even use it to cut meat into strips for jerky.

Ending Remarks

I have many knives, some of which get used more than others. While some have specific purposes, some have no purpose at all, other than to keep me linked to my past, life events and the people who helped make me the person I am today.

Use the right knife for the job, and it will simplify your life. **MP**







HOW TO MAKE TRANSPORT-FRIENDLY ARCHERY **PROJECTILES**

By Larry Schwartz

or as long as people have been shooting bows and taking them into the backcountry, they've faced the problem of how to pack all of the arrows they want to bring along. Today's backpackers and bugout-bag wearers who include a bow in their kit face the same problem. A person carrying a bugout bag also has the additional challenge of keeping them hidden from view.

Since bowhunters have been trying to solve this dilemma, numerous methods have surfaced. Presently, the most popular is using a pair of adapters that screw together to join the two arrow-shaft pieces. The other, an older technique, is to fit a smaller arrow inside a larger one. We'll take a look at how to use each method to make a set of take-down arrows that will suit your needs.



The first step in cutting the arrow is to place some masking tape over the area you'll be cutting. Then, measure precisely where you want to make the cut and mark the tape. For aluminum arrow shafts, I prefer to use a simple tube cutter that you can get at any hardware or home-improvement store. Align the mark on the tape with the cutting blade on your tube cutter. Then, tighten the cutter onto the shaft and rotate it around the arrow. With every two or three rotations, you should tighten the cutter slightly until it completely cuts through the aluminum shaft. All cut the smaller-diameter shaft into a set of short segments. These will be the pieces that connect the two halves of your take-down arrows. After cleaning the larger- and smaller-diameter shafts with alcohol, apply some glue to the inside of the larger-diameter shaft and slide half the length of the smaller-diameter shafts into the larger-diameter shaft. Set it aside to dry. To assemble the arrow, slide the smaller-diameter piece into the other half of the take-down arrow. If the fit isn't snug enough to keep the two pieces tightly together, wrap some plumbing tape around it to improve the fit. If you can't find another arrow shaft that will fit snugly inside your arrow, use a hardwood dowel instead. Use a fine-toothed saw to cut the dowel the same length as the small-diameter arrow, then round the ends.

Cut the Arrows

The first step is to cut the arrow shafts in half. To do this, you'll need the following materials:

- One or more arrows you want to convert into take-down arrows
- Masking tape to protect the arrow exterior
- Miter box
- Fine-toothed saw blade (32 teeth per inch)
- Fine sandpaper or emery paper (1,000 grit)
- Pipe-cutting tool
- Tape measure or yardstick
- Fine-point marking pen or pencil
- Dry, clean cloth
- ① If you're turning a carbon arrow into a take-down arrow, wrap some masking tape around the approximate middle of the arrow. The tape will protect the carbon fibers from splintering as you cut.

- ② Use your tape measure or yardstick to determine the middle of the arrow shaft and mark it with a pencil or fine-point marker.
- ③ Cut the arrow shaft in half using a fine-toothed hacksaw blade and a miter box to make a clean, right-angle cut. Note: If you're cutting an aluminum arrow, you can use a pipe-cutting tool instead. A third option is to take the arrows to an archery pro shop where they can use a specifically designed arrow saw to cut them for you.
- ④ Using fine-grit sandpaper, smooth any burrs from the cut ends on each piece of shafting, and remove the masking tape.

Arrow in Arrow

This was the approach I took when I made my first set of take-down arrows about 15 years ago. It was simple and easy to do, and the result was very sturdy. However, only hollow arrows will work, like carbon or aluminum.

"Using fine-grit sandpaper, smooth any burrs from the cut ends on each piece of shafting."

You'll need the following materials:

- The arrow-shaft halves you're converting into take-down arrows
- One or two arrows with an outside diameter equal to or slightly smaller than the inside diameter of the arrows to be converted
- · A miter box
- A fine-toothed saw blade (32 teeth per inch)
- Fine sandpaper or emery paper (1,000 grit)
- Small metal file
- Glue (five-minute epoxy or arrow adhesive; don't use hot-melt glue)
- Cotton swabs
- Denatured alcohol
- ① Cut the smaller-diameter arrow shaft into several segments that are 4 to 5 inches long using a fine-toothed hacksaw blade and a miter box to make clean right-angle cuts.
- ② Use the file or sandpaper to round each end of the smaller-diameter shaft pieces to make them slide more easily into the halves of the take-down arrow.
- ③ Wipe off the outside of the cut arrow shaft and the smaller-diameter arrow-shaft pieces with the clean cloth.
- ④ Use the cotton swabs to clean out the inside of each arrow shaft with the denatured alcohol. Do the same for the outside of the short segments. Let the pieces dry.
- (§) Apply a layer of adhesive on the inside of the shaft end that will have the point.
- ® Insert the 4- to 5-inch piece of shafting halfway into the shaft that has glue in it. Set it aside to dry per the manufacturer's directions.
- ⑦ Repeat steps one through six for each arrow you're converting
- ® To assemble the take-down arrows, slide the smaller-diameter shaft into the largerdiameter shaft. To disassemble, simply pull them apart.





WHERE TO FIND WHAT YOU NEED

The inserts needed to convert your carbon or aluminum arrows into take-down arrows are made by Wyatt Survival Supplies and are available at the following websites:

Wyatt Survival Supplies

wyattsurvivalsupplyllc.com

Solf-Doliance Outfitters

selfrelianceoutfitters.com

You can also buy preassembled take-down arrows from the following companies:

Wyatt Survival Supplies

wyattsurvivalsupplyllc.com

Self-Reliance Outfitters

selfrelianceoutfitters.com

Primal Gear Unlimited

gonrimalnow.com

Xpectre Survival Gear

survivalbreakdownbow.com



Which Arrow Fits Inside of Another Arrow?

The table on the right shows you which size aluminum arrow to use as an insert (right-hand column) to use for different-sized aluminum (left-hand column) or carbon (middle column) arrows. You only need to consider the first two numbers of the aluminum-arrow sizes. For example, an 18xx arrow (1816 or 1820) will fit inside a 21xx (2114, 2117, 2120) arrow.

| Aluminum Arrow | Carbon Arrow | Insert This |
|----------------|--------------|-------------|
| 19xx | | 16xx |
| 20xx | 500 | 17xx |
| 21xx | 400 | 18xx |
| 22xx | | 19xx |
| 23xx | 300 | 20xx |



Screw-In Adapters

Another approach, though not as simple as sliding in a smaller shaft to hold the two pieces together, is to glue in the special-purpose arrow inserts—available online—for making take-down arrows.

You'll need the following materials:

- The arrow-shaft halves you're converting into take-down arrows
- Glue (five-minute epoxy or arrow adhesive; don't use hot-melt glue)
- Cotton swabs
- Denatured alcohol
- One set of take-down inserts for each take-down arrow
- ① Wipe off the outside of the cut arrow shaft with the clean cloth.
- ② Use cotton swabs to clean out the inside of each arrow shaft with the denatured alcohol. Allow the pieces to dry.
- ③ Follow the glue manufacturer's directions to apply a layer of adhesive on the inside of each half.
- ④ Insert the male end (with the threaded rod on it) into the shaft half that will hold the point. Insert the female adapter into the other shaft half. Tap the insert on a flat surface to fully seat it in the arrow shaft.
- 5 Set them aside to dry per the manufacturer's directions.
- ® Repeat steps one through five for each arrow you're converting

① To assemble the take-down arrows, insert the male adapter into the female adapter and screw them together. To disassemble, simply unscrew them.

Variations on the Theme

While most people cut their arrows in the middle, you do have some leeway in how you make yours.

For example:

- ① Positioning your cut forward of center will increase your arrow's front of center (FOC) weight and can help increase penetration.
- ② If you can't find a smaller aluminum arrow to fit inside of your larger shaft, you can use a hardwood dowel instead, sanded down to fit snuggly.
- ③ Glue a lightweight shock cord to the inside base by the nock, then attach to the point insert to hold the matching pieces together if they don't fit snuggly.

A Rewarding DIY Project

Whether you've been looking for a solution to carrying your extra arrows, or you like to make and use new gadgets, or if you're a DIY guru and can't pass up a chance to start a new project, consider making take-down arrows. It's a fun, simple and satisfying project, and a great conversation topic at the range or around the campfire. MP

Take-down arrows are a packable solution for traveling bowhunters.



Lone Star Lever-Action Hogs

HUNTING WILD PIGS WITH THE GUN THAT TAMED THE WEST

By Brian Strickland

urprisingly, it'd been a slower hunt than expected. Northeast Texas has long since been a wild-hog stronghold, but the lack of multiple sightings, at least during shooting hours, had kept me from squeezing the trigger. I knew they were there—multiple trail-camera photos proved that. But, other than the fleeting glimpse of a large black boar slipping into the woods on opening morning, the hunt was pretty stale.

The lever-action is a timeless classic and an exceptional choice when wild hogs are on the agenda.



Fresh wallows near bedding cover are good indications pigs are in the area.

This particular chunk of Lone Star dirt has been in my family for nearly a decade now, and it's always been productive. Whitetails are in good supply, with even a few head-turners showing up when the rut arrives. As for wild pigs, face-to-face encounters are generally common. In fact, I anchored my first wild porker not far from this particular patch of piney woods many years ago, and my son, Brennan, did the same.

First Porker

Brennan was 12 years old at the time, and when the pair of jet-black boars eased out of the woodlot into the freshly cut hayfield, I thought his thumping heart was going to give us away. Wild pigs are intimidating at first sight, regardless of their size. But when they're sporting visible bone-white tusks and come prancing out just 40 yards away, each carrying at least 200 pounds of muscle, things can get intense.

Like all mature boars, they were cautious at first, only exposing their long snouts to test the wind and look for danger. When the first one finally came into the open, he only exposed his vitals for a few seconds before scampering back to cover. We thought our evening hunt was over, but a minute later, they pulled the same charade before easing their fears and coming out into the open to feed for good.

A trail camera had revealed these boars felt comfortable in this corner of the hayfield the past few evenings, and our plan was simple: Brennan would drop the closest one with his grandpa's Marlin .30-30 lever-action, and I'd follow up with my Winchester 94 as the second one departed.

Everything seemed to be going as planned. Brennan dropped the first one in his tracks just 35 yards away, but I wasn't so lucky. After a pair of quick misses, the wise ol' boar escaped with just a scare. Obviously, Brennan reminds me with a smile and a wink each time we pass that corner of the hayfield.

Tougher Than You Think

Wild pigs truly are the "Rodney Dangerfields" of the hunting community, and honestly, they rarely get the respect they deserve. Unlike many of the critters we chase, they're not adorned with sweeping antlers, don't have ear-rattling bugles or don a

colorful fan. Truthfully, they really don't look eye-catching in the trophy room eitheralthough some folks in the Deep South might have a bone to pick with me about that. But, when you consider the big picture, wild hogs truly are formidable game animals.

Without question, their eyesight is their weakest attribute, but it's not as poor as many believe and, in close quarters, they can identify the slightest movements. Their positive characteristics are their sharp ears, stellar nose, lightning speed and adaptability to almost any environment. These qualities alone make them a prized species. Best of all, they offer



[HUNTING WILD PIGS]





[HUNTING WILD PIGS]

virtually limitless hunting opportunities throughout the year, and provide excellent table fare, too.

Perhaps what's most impressive about these animals is their intelligence. Virtually any seasoned pig hunter or professional trapper will tell you that an old hog is as smart, or possibly even smarter, than a mature whitetail buck. If you bump a hog out of his bed or core feeding area more than once, you won't see him there again soon. If pressured, hogs become extremely nocturnal and will completely relocate if threatened. I've pursued them for nearly two decades, and although I don't consider myself an expert, I've spent a lot of time trying to track them down, and they've given me more fits and heartaches than I care to remember.

Into the Bush

With two evenings left to hunt, I headed to a heavy woodlot in which pigs like to bed, and with a stiff wind blowing and a soft ground quiet from recent rainfall, I felt a sneaky approach was my best option. With trail cameras only revealing nighttime activity on the field edges, it was time to go to them. So, with a round in the chamber of my Marlin .30-30, I eased into the woods with



hopes of quick success.

With last light just over an hour away, I eased along the inside edge of the woodlot at a snail's pace, looking for any hint of dark, bristly hide slipping beneath the thick understory. At best, my longest shot would be no farther than 60 yards, but a more realistic opportunity would likely be 30 to 40 yards with the thick cover. Either way, this was the perfect scenario

During the hot summer months, hogs are often found cooling in secluded water sources.



[HUNTING WILD PIGS]

for the iron-sighted, lever-action .30-30.

Pig action is generally fast and intense at these distances, and in this close-quarter combat, it's really hard to beat the lever-action rifle's qualities. Not only does this open-sighted setup aim quickly at both stationary and quick-moving targets, but the lever-action points naturally, reloads quickly, has gentle recoil and is lightweight and easy to carry. Best of all, they're extremely reliable, regardless of weather conditions. I must admit I have an unusual fondness for the lever-action rifle. Maybe that stems from many childhood hours watching Lucas McCain tame the Southwest with his .44-40 Winchester model 1892, or my own sense of adventure in far-flung locations. Regardless, I believe no gun carries as well, nor points as naturally as a lever-action rifle.

I soon stumbled into a wall of pigs feeding on buried acorns. I heard them first rustling in winter's decaying leaves, and when I took a few soft steps forward, the first one came into view. Its raven-black hide was easy to distinguish against the fresh green foliage. Although I wasn't certain if it was a sow or boar, its 150-pound frame was all I needed to see—I'm generally not too choosey when it comes to wild pork.

Moment of Truth

At just 30 yards, my sights quickly settled behind the shoulder, and when I touched the trigger, the remaining six hogs sprang in three different directions. The East Texas black beast dropped in a heap, and once again I was reminded that the famed lever-action .30-30 is more than just the gun that tamed the West. MP



Rubs are often found near wallows and are a good signs that multiple feral hogs are in the area.

HOG-BUSTER LEVER-ACTION RIFLES



The Winchester Model 94 (winchesterguns.com) is the world's most popular lever-action, and today's models encompass the latest manufacturing technologies to bring you the most accurate models ever produced. Accurate, exquisite and smooth, the Model 94 carbine is triple-checked at the factory to ensure optimal accuracy, and its smooth walnut stock complements the richly blued steel of the receiver and hardware. Round locking-bolt trunnions help ensure a smooth, quick lever throw, and the edges of the lever are radiused, making lever operation comfortable.

The Model 336 is Marlin's (marlinfirearms.com) flagship model and one of the most popular hunting rifles in North America. Offered in .30-30 Win. and the hard-hitting 35 Remington, the 336 is deadly, accurate and dependable. The 20-inch barrel with micro-groove rifling makes it exceptionally accurate, and the American black-walnut stock and fore-end are enhanced with fine-cut checkering featuring a handsome Mar-Shield finish. Its solid-top receiver is drilled and tapped for scope mounts and also features a richly blued finish and adjustable sights.

The Mossberg 464 (mossberg.com) has the familiar slim, flat-sided receiver, two-piece straight-grip stock, receiver-side loading port and tubular magazine with barrel band. The receiver is open-topped with the right side slightly lowered to allow sideways ejection, thus permitting receiver-top scope mounting, which utilizes Weaver 403 bases. Safety mechanisms include top-tang safety switch, a hammer block safety designed to prevent the hammer from striking the firing pin (unless the safety is off and trigger pulled), and the lever safety is designed so the lever can only be pulled when it's pulled against the bottom tang.

The R92 from Rossi (rossiusa.com) combines the beautifully authentic aesthetics that made the lever-action popular with modern engineering, and is available in .38/.357 Mag., .44 Mag. and .45 Colt calibers. It's also available in both round or octagonal barrels, has a handsome hardwood stock and is produced in blue, blue/case hardened or stainless finishes. Lastly, it features the Taurus Security System, which provides instant-ready defense with the built-in ability to secure the rifle to make it inoperable with a key turn.

Like every Henry rifle (henryrifles.com), its lever-action .30-30 is 100% American-made. Featuring an American-walnut stock and forearm, the Henry H009 has a steel receiver and a round, blued-steel barrel that's machined with state-of-the-art multiple-groove rifling. It has a visually appealing 20-inch octagonal barrel and a handsome brass receiver and brass barrel band. Both models are drilled and tapped for scope mounting, and the tubular magazine holds five rounds that chamber quickly with the perfectly machined action.

Browning's BLR Lightweight '81 (browning.com) features a gloss finish on the walnut straight-grip stock that contrasts beautifully with the deeply polished blue finish on the receiver and the barrel. One of the drawbacks of many lever-action rifles is average accuracy at greater distances caused by flat-nosed ammunition, but the BLR utilizes a reliable box magazine that protects bullet tips and allows it to fire powerful, game-dropping magnum cartridges. Couple this with its aircraft-grade alloy receiver, glass-smooth rack-and-pinion system and multi-lug rotating bolt, and you have the qualities of modern ballistics in the traditional lever-action package.

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(top) Two commonly used types of buckets for traps: a smaller square and a larger round bucket. The author prefers to use the square variety. (center) The notches the author makes on the bucket are about ¼-inch wide and 2 inches deep in the bucket. (bottom) Drill a couple of holes in the bottom of the bucket to allow rainwater to escape and the odor of lures and baits to spread over a wider range.

"My coon buckets are nothing more than pickle pails from a local sandwich shop."

Conibear Considerations

For years I used nothing but the #220 conibear when making a bucket set, but I've learned throughout the years that the #160 is a better choice. The smaller #120 doesn't have the power, and the #220 has a tad too much, in my opinion. In Illinois, where I do most of my trapping, we can legally use the #220, and many trappers do, but most aren't considering possible non-target catches. A conibear is a lethal trap regardless of whether a raccoon or domestic animal is caught, and there isn't exactly a surefire way to prevent domesticanimal catches. However, the #220 is far less forgiving than the #160 if the unthinkable does happen.

Another downfall of the #220 is that it weighs and costs more than the #160. I still use #220s on my trapline when needed, but the #160 is big enough for big old boar coons.

Bucket Business

I first started using bucket sets about 20 years ago. Back then, I used round, 5-gallon buckets, but they don't stack very well, and they take up a lot of room. When I switched to the #160 conibear, the round buckets were too large, and because they're round, they tend to roll around if not properly stabilized.

The square buckets I now use have a 9x9inch opening and are 13 inches deep. These fit the #160 perfectly.

My coon buckets are nothing more than pickle pails from a local sandwich shop. Bakeries also receive icing and shortening in square buckets. Make a few calls, and you'll find most places will happily save buckets for you. If you don't mind spending a couple of dollars per bucket, they can also be found at trapping conventions and through many trapping supply companies.

Just like I did with the round buckets when I used #220s, I cut notches in the square buckets to help support and stabilize the trap. The notches I make are about 1/4-inch wide and 2 inches deep in the bucket. If the notches are deeper than 2 inches, they go past the



Coon Lures and Cautions

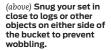
There are two types of coon lures: those that smell sweet and those that smell bad. Each type has its own place on the trap line, depending on the scenario.

Coons love sweet-smelling lures, but dogs, house cats, skunks and possums aren't as fond of them. I opt for a sweet-smelling lure any place an unwanted catch is possible at a dry-land set. Also, go the sweet route with killer traps (body-grip traps) to avoid catching a coon hunter's hound. Trappers have a difficult enough time protecting their rights without the additional problems from catching a pet. You'll still catch some possums and skunks with sweet-smelling lures, but not as many as you would with a strong lure. When you do catch a non-target furbearer, be happy that you have a chance to earn some extra gas money.

If you're ever in a situation where you think catching a domestic animal is possible, don't use body-grip traps. Instead, use a dog-proof trap. There are many good ones on the market, and their prices have dropped in recent years. You'll still catch a pile of coons, but not your neighbor's pets.







(below) Fish oil is a good trailing scent and, when mixed with dry dog food, makes great bait.

bucket's rim and allow the trap to sit too far inside. This could allow the animal to get too close to the bait and use its paw to grab it. I also like to drill two or three holes in the bottom of the bucket, which allows rainwater to escape and the bait's odor to distribute more effectively.

I don't worry about painting the buckets. Coons don't seem to care if the bucket is white or pink; they enter it regardless. In fact, I believe a white bucket even serves as a visual attractant. The only time you need to paint buckets is when you're concerned other trappers will notice and possibly steal them. In this case, spray paint them green or brown, and throw in a few swipes of olive drab for further concealment.

Securing the Trap

I use a 6-foot length of 14-gauge wire to secure each trap. When I set a bucket, I unwrap the wire and twist it around a root,

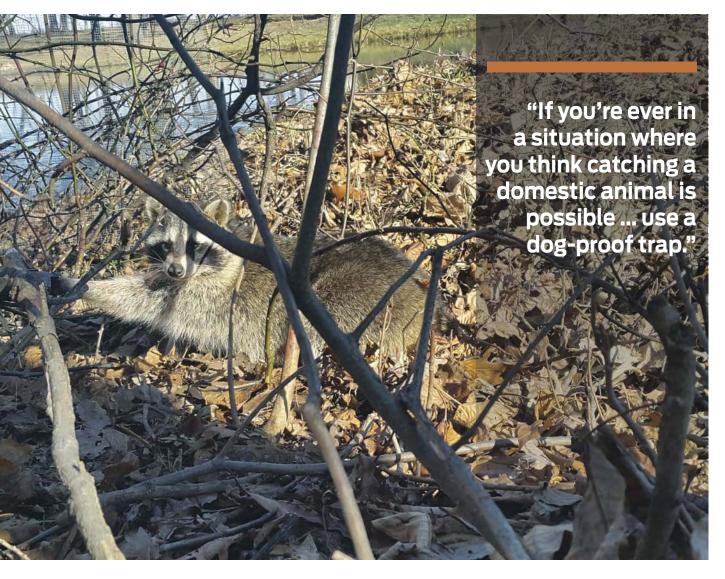


tree limb or trap stake.

Another option is to pre-rig lengths of 7x7 5/64-inch snare cable, about 6 feet long, with a 2-inch loop on one end and a quick-snap connector on the other. This length of cable can be coiled up and twisted around itself like a snare and is ready to use in seconds. Run the cable around the tie-off point—rock, tree, limb or trap stake—then clip it to the trap's chain or spring. You can make these fastener cables during the off-season, and have enough ready to go whenever you need one. They're reusable, but will eventually become kinked and warped much like beaver snares. When this happens, cut off the snap and add a new piece of cable.

Bucket-Set Bait

There are many options for bait. At times, I use fish chunks wired to the back of the bucket by holes I've predrilled, but it's timeconsuming and not everyone is able to fish



during the offseason. Another problem I've found with using fish is that rodents and birds can get in and steal the bait. Also, coons have a tendency to reach for the bait with their paw and set off the trap. Now I mainly use fish for pocket sets.

My go-to bucket bait is dry dog food soaked with fish oil. I fill old socks and other pieces of old clothing with the soaked dog food, and then tie them up tight. I secure the baited clothing to the back of the bucket through a predrilled hole with 14-gauge wire. The easiest way to make these bait socks is to fill as many as you can with dog food, toss them in a 5-gallon bucket, and cover the socks with fish oil. Mice and other rodents usually won't eat the dog food if it's tied off the bucket's bottom. Even if they do manage to eat the food, the fish-oil odor remains to draw coons in.

It's important to make sure your bucket doesn't wobble. If needed, snug it in close to logs or other objects on either side of the bucket. If the bucket isn't on level ground, it might be necessary to place a rock or other object on top of the bucket for stability.

I cannot overemphasize the importance of using a trail scent. I save all of my cooking grease for this and always have fish oil handy. Use plenty of scent leading to the bucket from every direction where a coon might approach and you'll dramatically increase your success.

Final Thoughts

Catching coons with a bucket set is simple and effective, but coons must be in the area in order to be caught. I always move my traps every three days, whether I've caught a coon or not. If there are coons in the area, you'll catch them by the third night. If there are a lot of coons in the area, gang set for them and move to the next spot.

Follow the advice I've given you and set where there are plenty of coons, and your evenings will be spent in the fur shed skinning coons this fall and winter. MP

If you're trapping in an area where catching a domestic animal is possible, use a dog-proof trap. This coon was caught using a dog-proof trap near a home that had pets.



Backwoods Safety

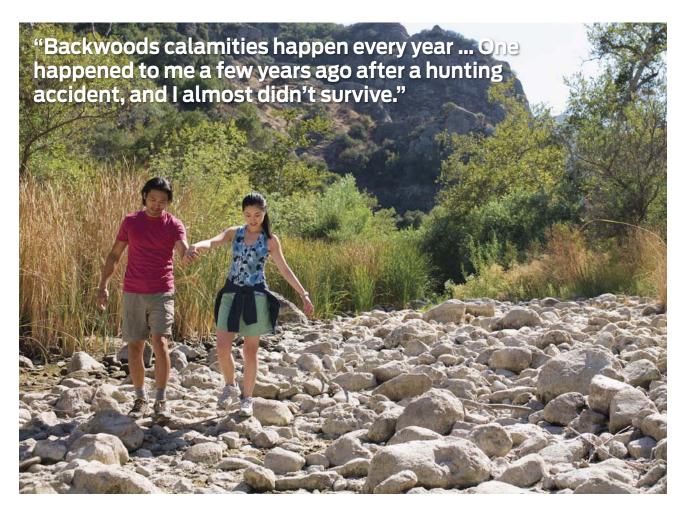
PREVENTATIVE MEASURES AND WHAT TO DO WHEN CALAMITY STRIKES

By Tracy Breen

e've all heard stories of people who went on a day hike or afternoon hunting outing when disaster struck. A short hike or hunt turned into three days lost in the woods, or even worse, the person went missing for weeks and was never heard from again.

Backwoods calamities happen every year in America and beyond. One happened to me a few years ago after a hunting accident, and I almost didn't survive. The incident taught me that a short walk in the woods can quickly turn into a nightmare if you're unprepared for the worst. I don't think everyone should be scared to walk in the woods or needs to bring enough food and gadgets to survive for weeks every time they head out on a jaunt, but there is a happy medium.

Fred Wurster, a helicopter EMS paramedic from Pennsylvania, is well versed in backwoods safety. Helicopters only get called in when things get really bad, so Wurster has obviously seen his fair share of tragic situations that started as harmless outings. According to Wurster, a few simple precautions can greatly increase the odds of getting out of the woods safely, even when disaster strikes.



(above) Oftentimes, well-meaning hikers head out on a harmless day hike unprepared for what could go wrong. Not packing food, water and a first-aid kit is asking for trouble.

(right) The last thing anyone wants is a helicopter ride out of the woods, but this scene happens often all over the world.

(opposite, top) A river or stream can provide you with drinking water, and it can be used to reduce inflammation in a sprained ankle.

(opposite, bottom) Fred Wurster believes everyone who spends time in the woods should pack a first-aid kit.

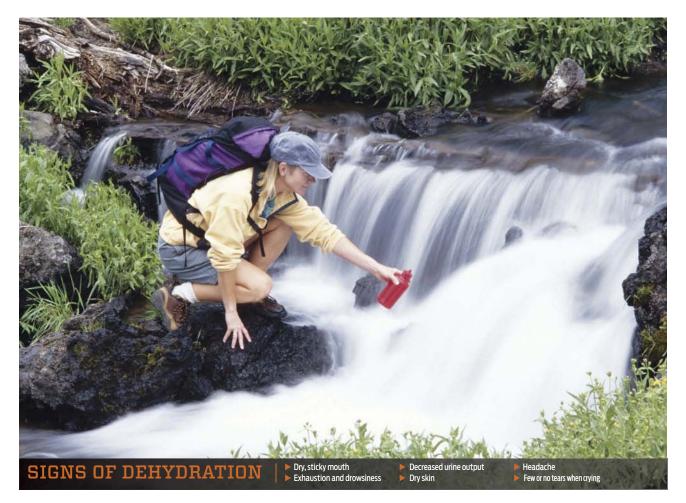


Bring a Tourniquet

Wurster believes a person headed for the woods should never leave the trailhead without a simple tourniquet. "Many wounds incurred in the woods are caused by guns and knives," he said. "A large wound can bleed quickly and a person can die from blood loss. The truth is that although many people die from these types of wounds, many can prevent death by preparing for them. A simple tourniquet can save a person's life if they've cut themselves or have been involved in a shooting accident. These types of wounds can be survived in most cases if they happen to an extremity. Everyone should have a commercially produced tourniquet in their backpack with them at all times in the woods. They can be put on quickly and tightened up to halt bleeding."

Make a Tourniquet

If a person is in a situation where they need a tourniquet but don't have one, Wurster advises making one using everyday items. "A person would need to find a rigid stick, tent stake or wooden dowel that can withstand lots of torque without breaking," he told us. "They need to find a sock, shirt or something that can be used to cut off the blood flow around the [appendage].



The stick provides the mechanical advantage to tighten the shirt and apply enough pressure to slow down or stop the bleeding."

Although a homemade tourniquet does the job, a commercial unit is inexpensive and worth the investment. "A commercial tourniquet has a built-in mechanical-advantage tool that helps you tighten the tourniquet, which can be difficult to do with a homemade tourniquet," Wurster explained.

Cool It

A simple sprained ankle isn't life threatening, but suffering one can cause a laundry list of problems. "If a person can't walk properly and the temperatures are plummeting or a fresh blanket of snow is covering the ground, things can get ugly quickly," Wurster warned. "Some argue it's best to remove your boot when an ankle is sprained, but others advise leaving it on. I say leave it on. If a foot is swollen from a sprain, getting the boot back on can be nearly impossible. Leave the boot on and quickly cool the foot down. To do this, find a water source like a stream, river or lake and put your foot, with the boot on, down into the water. Leave it there for an extended time until some of the swelling subsides; then head out of the woods.





[BACKWOODS SAFETY]





The cold water will reduce the overall swelling and relieve some of the pain.

"When you're out of the woods, get your foot out of the boot. In some cases, the boot will need to be cut off, but it's better to cut it off once you're out of the woods to prevent further complications."

When dealing with sprains, Wurster recommends remembering the simple acronym, "ICE," which stands for "ice it, compress it and elevate it." Do these three things quickly.

Make or Bring a Splint

A broken leg or foot is another calamity that often happens in the woods. Wurster said determining whether something is broken or sprained can be difficult, but in either case, a splint can sometimes help keep the leg straight so the person can get out of the woods without further problems. "A strong stick and some duct tape is obviously the easiest way to make a splint if a person doesn't have one, but there are commercial splints made specifically for hunters and hikers. They're packable and collapsible, similar to a tent pole. If a person spends much time in the woods, these are great to have. A tent pole would also work in a pinch," Wurster noted.

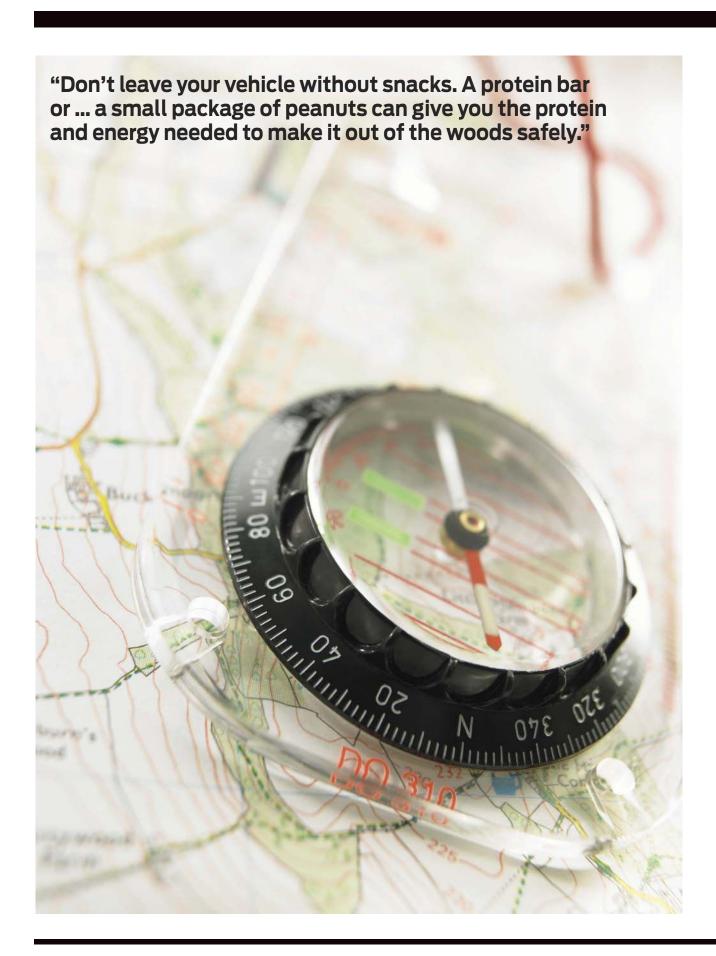
Another type of commercial splint Wurster recommends is a SAM splint, which is a bendable piece of foam-covered aluminum. It can be used as an arm, leg or foot splint—with any part of the body. "A SAM splint is easy to use and can be a real lifesaver when something goes wrong deep in the woods," Wurster said.

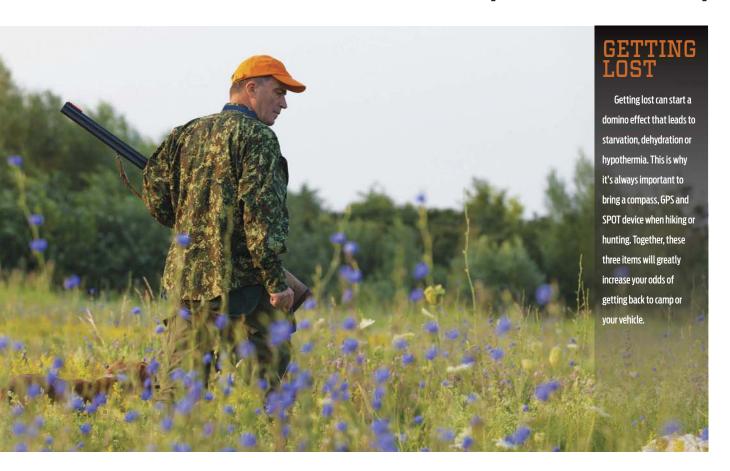
Make a Crutch

A person who needs a splint will also need some type of crutch. "The easiest homemade crutch is a long, Y-shaped limb that can be used as a crutch under the armpit. When making a crutch, people should keep in mind that it should be lower than you, not higher," Wurster advised.

Bandages on Steroids

Most think about carrying bandages into the woods, but Wurster believes everyone should take it one step further. "I don't leave home without Quikclot bandages," he said. "As the name implies, the bandage causes a wound to quickly clot and stop bleeding. The bandage has little beads in it, and when they mix with blood, a reaction causes clotting. A person can push this dressing into a big wound and stop the bleeding.





(top) Helicopter paramedic Fred Wurster has helped rescue many hunters throughout the years who were only prepared for a day hunt. When bad weather struck or something went wrong, they found themselves camping out overnight with little or no food or water.

(opposite) Getting lost is one reason many hikers and hunters end up in trouble in the woods. Learning how to use a simple compass or a GPS can eliminate this problem. These bandages work well on head wounds, which bleed badly ... Quikclot bandages can stop the bleeding so a person can get out of the woods without extreme blood loss."

Prevent Hypothermia

One of the most common mistakes Wurster believes people make that results in an expensive helicopter ride is developing hypothermia. "Hypothermia is easily prevented, but once a person has it, it can be life-threatening," he said. "If a person doesn't bring enough clothing layers with them, if it rains or snows, or if they sweat a lot and then get cold, the odds of getting hypothermia, especially if they have a long hike ahead of them, is really high.

"People shouldn't leave their vehicle without a fire starter, even if it's spring or summer," Wurster added. "An extra shirt, pair of pants or thermal blanket can make a world of difference. None of this stuff is heavy or bulky, so there's no reason not to bring it along. I've flown people to the hospital who've lost toes due to preventable hypothermia cases. Being prepared for this stuff is a must."

Prevent Dehydration

At the other end of the spectrum is dehydration. "We [often see] cases of dehydration," Wurster warned. "People plan to hike for a few hours and only bring a little water with them. Soon, they're out of water and have a bad

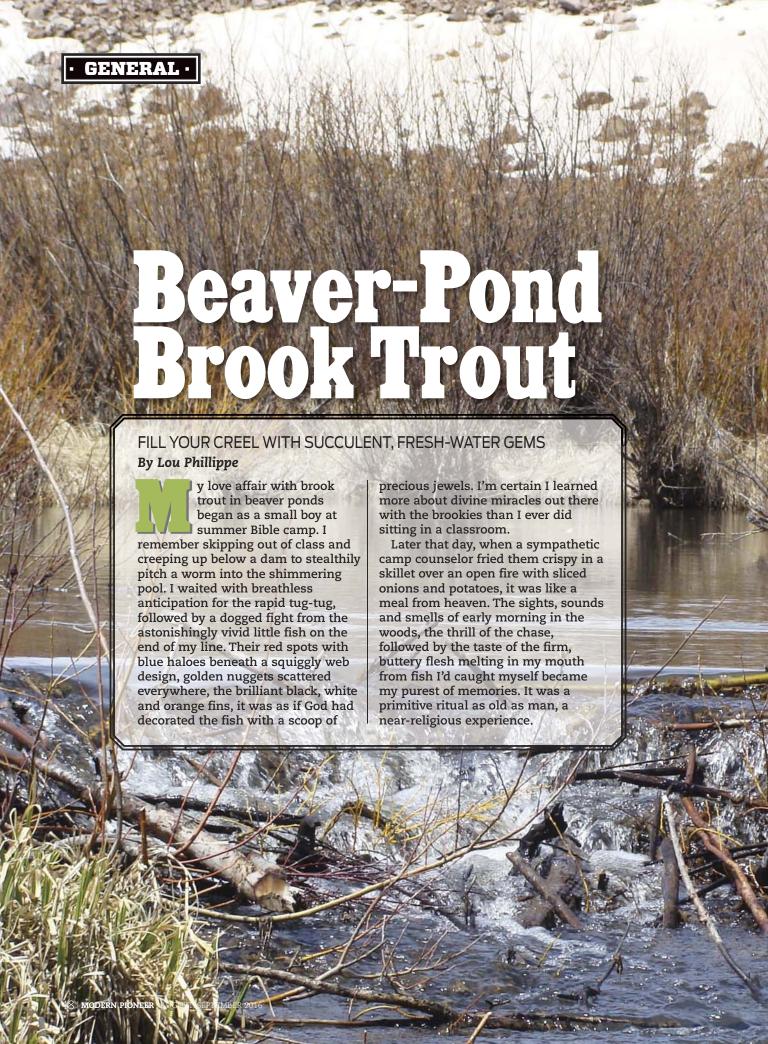
headache. People can get dehydrated, whether it's 80 degrees or 20 degrees. Always pack plenty of water, bring water-purification tablets and some type of electrolyte drink or powdered packet in case you get into a real jam."

Always Bring Food

Don't leave your vehicle without snacks. A protein bar or two, powdered hydration packets or a small package of peanuts can give you the protein and energy needed to make it out of the woods safely. "I tell people to carry a few honey packets, a few sugar packets and a salt packet," Wurster said. "In a jam, quickly consuming these three things in a cup of water will replace electrolytes and other things the body needs to stay focused on getting out of the woods safely."

Plan and Prepare

The adage, failing to plan is planning to fail, is true when it comes to spending time in the woods. Always hope for the best, but prepare for the worst. Have a first-aid kit with you on every outing, have extra water and clothing, and bring plenty of protein-packed snacks, even if you only plan to be in the woods for a few hours. We all know a short trip can quickly turn into a harrowing experience. As the saying goes: the bestlaid plans of mice and men often go awry. Remember that the next time you lace up your hiking boots. MP









"Biologists have learned that trout will actually wriggle through the tangle of sticks and logs to enter beaver ponds prior to winter, where they'll survive until dispersing again in spring."

Now, more than half a century later, my excitement over these little wilderness gems burns as brightly as when I lifted my first wriggling brook trout over the dam and into a creel filled with damp moss. I've caught sturgeon 12 feet long, but to me, the thrill of catching a 12-inch brookie is unrivaled. I love watching and catching them so much that I built a cabin on a brookie stream overlooking a beaver pond where I can walk down and fish whenever the urge strikes. My daughter also caught the brookie bug at an early age, naming our cabin "Brook Trout Lodge," and crafting and painting a large papier-mâché brookie as a trophy ornament.

The Beauty of Beaver Ponds

Brookies and beaver ponds go together like hands and gloves. The beaver's engineering wizardry provides perfect habitat in small waterways where brookies can find protection from predators, spawn and grow to surprising size. Biologists have learned that

trout will actually wriggle through the tangle of sticks and logs to enter beaver ponds prior to winter, where they'll survive until dispersing again in spring. The ponds also serve as

excellent breeding grounds for foods brook trout love, including scuds, midges, mayflies, tadpoles, water boatmen, damsel and dragonflies, diving beetles and, of course, baby brook trout. This smorgasbord is partly why brookies in beaver ponds are not especially selective about what they eat, and why they so eagerly strike a carefully presented fly or lure.

My largest beaver-pond brookie was a leviathan more than 17 inches long caught from a small pond fed by a trickle one could easily step across. He obviously grew large as a cannibal, and I carefully returned him to the water to continue his job of keeping the population in check.

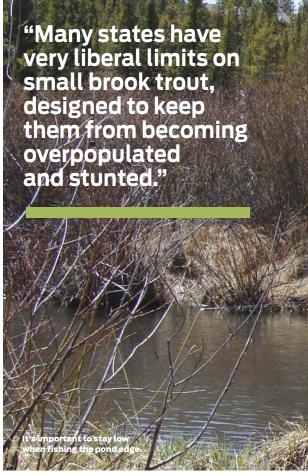
Tackle

The beauty of brook-trout fishing is that it doesn't require specialized tackle. Even a cane pole will do the job, but spinning, spin cast or fly rods more effectively reach all areas of a beaver pond. Brookies often school in the pool's deepest part, so the ability to reach your lure or bait across the water is important. Many spin-cast reels come spooled with heavier line than is necessary. Replacing it with 4-pound test will allow you to cast a small bait or lure much farther and feel the lightest bites.

An ultra-light spinning rod with a wormtipped spinner is deadly. Believe it or not,

> Brookies are aggressive, instantly ready to strike a well-placed fly or lure.





you'll hook more fish if you clip two of the three treble hooks. Decades ago, a small in-line spinner/hook combination was developed, commonly called a "Colorado Spinner," which allowed a slow retrieval with the blade flashing seductively, trailed by a single baited hook. That simple outfit was extremely effective on brookies.

If fishing with bait, nothing beats a garden worm on a hook with a single split-shot pinched on the line about a foot above. Often, brookies will grab it as it settles, but reeling it slowly near the bottom will bring a strike on nearly every cast until the pond is spooked. It's good to use a somewhat larger hook than normal—a number 6 or even a 4—if the fish are of good size. Brookies are voracious feeders, and a larger hook will spare the small ones.

Tactical Approach

Beaver-pond brook trout are under constant siege from predators from above and below. Herons, ospreys and kingfishers stab and grab them, while mink, snakes, turtles and water snakes lurk below. I've even seen bears stalking



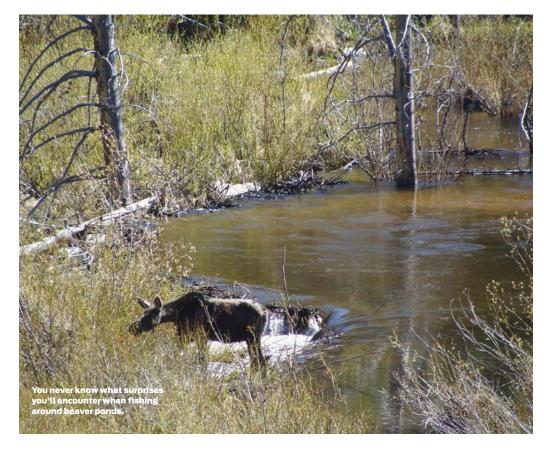
them in the shallows where water flows into the pond. For this reason, they've adapted by being extremely wary. A pond full of unsuspecting brook trout can produce a dozen or more before they become spooked, and will then need to rest before you can try again.

It's critical to keep a low profile, either by sneaking in below the dam or crawling up to the edge, using bushes and willows as cover, and gently flipping the lure or bait out close to shore. You never know where they'll be hiding. I've had them run out from beneath the bank to grab a fly as I lifted it out of the water.

Casting a fly to rising brookies in a pond is a hoot, but many more fish are caught near the bottom. I like to use a weighted fly and count to 10 before retrieving with a pull-stop motion. They often strike when it stops. A fly with a tiny propeller at the eye—a style called a "Pistol Pete"—combines the flash of a spinner with the colors and profile of natural food and may be the most effective beaver-pond lure. In my experience, combining a tiny propeller with a Rio Grande King is the only fly needed for brookies in these situations. Of all the



for kids. Though spooky, they're gullible and eager to bite nearly anything that flashes in front of them. Teaching a child how to sneak up on a beaver pond, hide behind the dam or nearby bushes, and then experience the instant gratification of a rapid bite can hook them on fishing for life, just as it did me. The entire experience, from digging worms to stalking the pond to cleaning the fish and frying them in a pan over a bed of coals, immerses boys and girls in the mysteries of the natural world. The teaching opportunities are endless, and the abundant wildlife nurtured by the beaverpond ecosystem is like watching "Wild Kingdom" in highdefinition 3D.



different flies and lures I've used in more than 50 years, nothing matches it for pure brookiecatching action. Its color combination must remind them of a small brook trout, triggering instant bites.

Beavers store big bunches of sunken birch, alder, aspen, willow and poplar branches as food caches throughout the pond. Look for these tangles. They provide good trout cover, but also are snags waiting to happen. I like to cast near them, but not into them, since the fish will run out to grab the fly or lure.

A pan full of brookies and onions fried eside a stream provides a gourmet delicacy worthy of the diversion.

Beavers build ponds in chains, so it's best to start at the lowest, most downstream pond and work your way up. When one pond becomes spooked, simply move up to the next dam and continue. Fish the entire pond carefully, from immediately in front of the dam, all the way to where the water rushes in. Side channels can be especially good, and sometimes the old bull brookies will stake out a territory back in there. That's where I've caught my largest beaver-pond brook trout.

After the Catch

This may be the very best part of beaverpond brookie fishing. Many states have very liberal limits on small brook trout, designed to keep them from becoming overpopulated and stunted. In Colorado, the limit is four fish

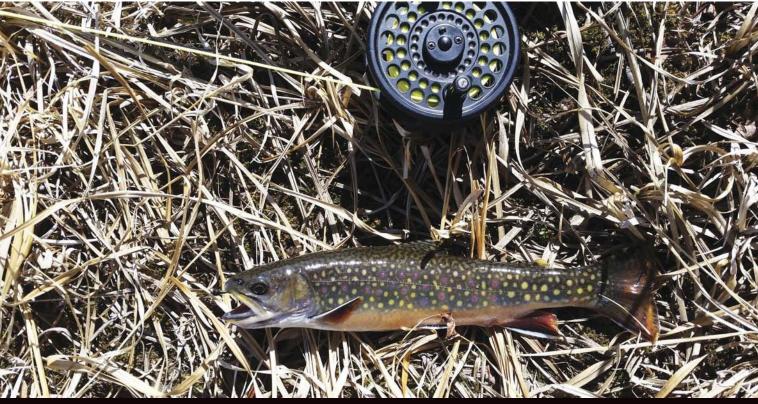
larger than 8 inches, but an additional 10 brookies that are less than 8 inches

may be kept. That makes for a gourmet, restaurant-worthy delicacy. Brook trout are not actually trout, but are in the char family, which includes lake trout, bull trout, Dolly Varden and Arctic char. The flesh of the chars is slightly different from that of the trout, sweeter tasting and firmer when cooked. Many folks who don't

like the fishy taste of trouts usually

love brookies.

[BROOK TROUT]

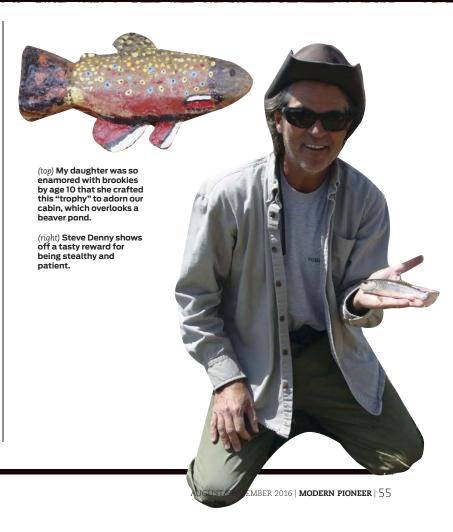


When God created brook trout, He decorated them with a handful of jewels.

When teaching kids to fish for brookies, a tasty backwoods lunch can be had by simply roasting them over a fire on a green willow stick. They can then be eaten out of hand, and most children willingly release their inner savage.

A better option, one I prefer, is to pack along a small aluminum fry pan, a baggie of seasoned flour, some salt and pepper and a small container of olive oil, butter, some paper plates and paper towels. Simply roll the fish in the seasoned flour, fry until the skin is crispy and enjoy. I've been with folks who eat the small ones bones and all, but on a properly cooked brookie, the meat will flake off the bones and only a pile of skeletons will remain. There is something about eating fried brookies in the woods beside the pond that gives them a special flavor.

As I mentioned, I've been lucky enough to battle fish of prodigious size in my lifetime, but when stalking a beaver dam at sunup with the mist rising above the pool, a heron standing sentry at water's edge, earthy, organic smells wafting through the air around the musical serenade of water cascading over and through a dam, I'm taken back to simpler, purer times in my life without stress or worry. Then, when the first bite is followed by the bulldog tugging of a brook trout and the joy of holding the little bejeweled creature in my hand, I again become that sly little miscreant sneaking out of Bible class to learn my lessons in God's living theater. MP



Homemade Small-Game Points

SAVE MONEY AND ANCHOR MORE CRITTERS WITH YOUR BOW USING THESE TRIED-AND-TRUE CREATIONS

By Patrick Meitin

hen I was young and began bowhunting, small game was how you earned your stripes before graduating to big game. I first pursued vacant-lot cottontails and starlings close to home, then wandered farther afield to chase rock squirrels, prairie dogs and jackrabbits. This was how I honed my bowhunting skills, learned about patience during a stalk, and controlled my nerves while shooting under pressure and blood-trailing game. As a youngster, these were serious forays while I dreamt of bigger proceedings, and when I ventured after local desert mule deer, those lessons served me well.

I find it sad that so many modern bowhunters forgo these important lessons or ignore small game altogether. They jump right into the big leagues and make many mistakes for lack of experience. Today, I've bagged everything from backyard whitetails and black bears to African Cape buffalo and Alaska brown bear with a bow, but I still get great pleasure from pursuing small game during the offseason. I always tote at least two small-game arrows while hunting big game to collect camp meat and sharpen my shooting skills.







The author (right) and his brother, William, simply used pistol-brass blunts to smack and pin these summertime bullfrogs.

SMALL GAME AND TRAD GEAR

THE PERFECT PURSUIT

You've probably noticed I lean heavily toward traditional gear for small-game hunting. It's not that I have anything against compound bows; I use them for at least 50-70% of my big-game hunting. But when I'm out roving for grouse, rabbits, tree squirrels or bullfrogs, I grab a recurve or longbow. This is partly nostalgia (this is how I started bowhunting, after all) and a larger part efficiency. Small game is seldom shot at long ranges; it's usually done in tight brush and often while moving.

The easy-pointing, fluid style of shooting a traditional bow instinctively is most conducive to small-game success. A canted recurve and an arrow guided purely by instincts makes it more natural to thread the needle through tight brush to reach a 15-yard bunny. A gray squirrel bouncing through the tops of an oak tree poses no problems—just point and shoot, no real aiming required. A running rabbit or flushing pheasant? Just stare through him, hit anchor and release.

Traditional archery is resurging. Company's such as Bear Archery (beararchery.com), Hoyt (hoyt.com) and Martin Archery (martinarchery.com) produce affordable, fine-shooting recurves and longbows perfect for small-game pursuits.

I also enjoy fashioning my own small-game points. This is partly borne of my traditional proclivities, partly by the fact I love to tinker. Zwickey's spring-armed Judo points are awesome, but at around \$5 apiece, losing one (especially while shooting today's high-energy compounds) or sacrificing one to a pile of rocks while shooting at a fat bunny really stings. Rubber blunts are affordable but tend to skip and are easily lost in brushy environments. To mitigate these problems, I make my own small-game points for a fraction of the cost.

I've used several designs successfully in various small-game situations, and each is engineered to save money and address particular circumstances.

.38 Specials

One of the original cheapo small-game blunts involves slipping a spent .38-caliber center-fire cartridge casing over the end of an untapered 11/32-inch wood arrow, perhaps using an awl and a few light taps to crimp it securely. I certainly didn't invent this approach; bowhunters were using blunts well before I began bowhunting nearly 40 years ago. Used alone, they offer a cheap, simple way to create a durable, hard-hitting blunted tip on

"... I've bagged ...
African Cape buffalo
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bear with a bow, but
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the offseason."

any wooden arrow. I normally find all of the .38 casings I need by scouring campsites and popular shooting areas.

I take these blunts a bit further, drilling out the primer and primer pocket, creating a small pilot hole through the primer pocket and into the center of the shaft with a small drill bit and installing a small cap- or hex-head screw. This adds more weight to the front of the arrow, and creates a tougher steel leading edge to better withstand punishing hits, especially in rocky areas.

Cheap Grabbers

A good start to creating homemade, nonskipping points is .38-caliber brass: .38 Special, .357 Magnum or 9mm Auto. You can also use glue-on blunts or field points, defunct broadhead ferrules, screw-in field points or broadhead adaptors for insert-equipped arrows. In the case of pistol brass, I skip the front screw because you'll need to drill cross holes for finishing nails, springy sections of survey-flag wire or weed-trimmer line to effectively anchor the brass. Work to match drill-bit diameter to wire or trimmer-line dimensions; you'll want a tight fit so you'll be able to replace the wire or line sections at will. A tight fit means you'll have to screw in the cross sections while holding them with pliers. An awl-punch makes it easier to remove broken sections before replacement.

I also use pliers to create 90-degree bends in wire ends. Pushing the wires slightly forward also helps them set more securely in the base. With weed-trimmer line, I simply leave longer sections exposed to grab passing grass and debris, which slows progression after a shot. They also do a job while passing through small game.

With wood arrows, I start with an inexpensive 100- or 125-grain glue-on tip, depending on final weight desired. With compound tips, you must sometimes get creative because precise weight becomes



DIY Grabber

Here's how to construct a small-game grabber point with a wooden arrow, finishing nail and .38-Special casing.



FIGURE 2: Remove spent primer and drill out primer pocket to accommodate screw.



FIGURE 3: File shaft to accommodate .38 casing while also retaining a tight fit.

FIGURE 1: Weigh .38 Special (or .357 Magnum)

cap screw to achieve desired finished weight.

casing, finish nail sharpened at both ends and small



FIGURE 4: Slip prepared casing over shaft end and



FIGURE 5: Drill hole across shaft using drill bit, resulting in extra-tight fit of finish nail.



FIGURE 6: Sharpen both ends of standard finish nail.



FIGURE 7: Gently tap finish nail through cross hole



FIGURE 9: Use small drill bit to create a pilot hole for cap screw, drilling through primer-pocket hole



FIGURE 8: Bend nail ends to create barbs.



FIGURE 10: Carefully insert thin-thread, large-cap screw to secure casing and create tougher front face



FIGURE 11: Finished product

more important to accuracy. I normally assemble all of my starting parts and weigh them on a reloading scale to ensure I'm within my target weight. Aluminum broadhead adaptors are sometimes necessary to achieve standard compound weights, though don't discount light steel field points in the 75- to 85-grain class. Precision Designed Products (pdparchery.com) makes everything arrow related and is a good place for parts of all weights and configurations.

Washer Blunts

An easy way to create rugged shocker small-game heads is to choose a screw-in field point or blunt and place an appropriately sized washer over the thread ferrule before screwing it tight. Again, I normally weigh my parts before beginning, matching a light field tip with a washer to create my final desired weight.

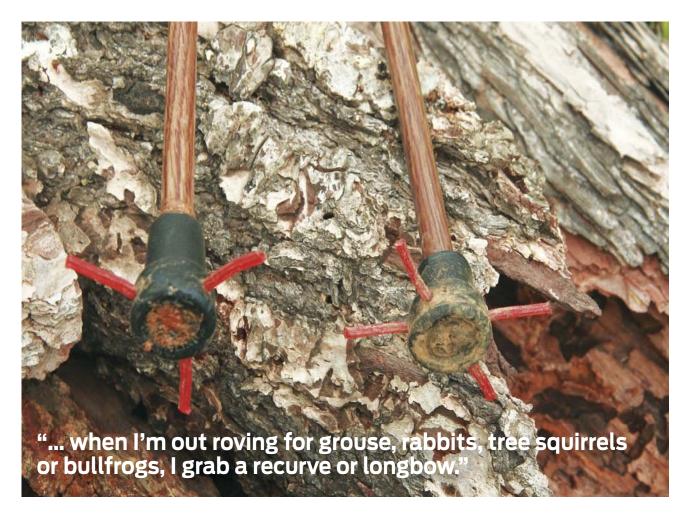
I also prefer to make my washer shockers one-piece units. I start with a screw-in or glue-on point, matching it with a washer that sits over the tip taper or tightly around the field-tip body (drilling it out if necessary), and soldering, brazing or spot-welding it in place. I often dish my washers by placing them over an opening slightly smaller than its outside diameter, placing a large tapered punch inside the washer opening and rapping it a few times, creating forward-tilted edges that grab more aggressively. A drilled wood block holder also simplifies this job, holding washers level while welding, since tilted washers cause wind-planing.

You can also start with a washer that's intentionally oversized/overweight, using a bench grinder to create notches for added ripping action. Place it on your reloading scale periodically to test for finished weight.

Snow/Grass Blunts

From December through February, when there's nothing else to do around home, I take my recurve and snowshoes for late-season grouse and hares. The only problem was I was losing a lot of arrows, even when I hit my targets, sometimes returning in the spring to find them hung in brush 3 feet off the ground. I finally resolved the issue by creating snow blunts. Snow blunts begin with a commercially made wide-face rubber blunt.

I prefer Bearpaw's Slip-Over rubber blunts (lancasterarchery.com)—5/16-inch 100-grain (carbon or aluminum arrows) and 11/32-inch 125-grain (wood arrows)—because they include a dished face that better slows digging in soft snow. I begin by weighing parts (base-steel, rubber blunts and trimmer line sections), cutting away the rear of the blunt or grinding/shortening the interior steel blunt to trim weight as necessary, slipping the rubber



blunt over the shaft, gluing it in place if it doesn't fit tightly, then drilling three to six evenly spaced holes around the outside edges of the blunt's widest circumference. Then I dip lengths of weed-eater line into glue and twist them into the holes with pliers. What results is a standard rubber blunt with three to six spokes radiating from its side. The weed-trimmer line, combined with the rubber blunt's flat surface, usually prevents arrows from burrowing under snow.

I also dress snow-blunt arrows with the brightest 5 ½-inch feathers and vinyl wraps I can find. The bright decorations often glow right through a couple inches of snow, making arrow recovery easier. Snow blunts also really sock it to small game.

Shooting Flying Targets

Shooting flushed upland birds or decoyed ducks with traditional bows is a hoot and more feasible than you probably think. There's a steep learning curve, but your hit-to-miss ratio improves by using special bird points. You can easily fashion your own Snaro points with some of the methods already discussed by just extending cross-section arms to include wide

loops of material. This involves drilling slightly larger holes because you'll be accommodating the main and return ends in two figure-eight configurations.

Thin survey-flag wire is preferred for its springy nature, but I've also experienced decent results using weed-trimmer line. Wire is finished by bending the ends over after loops are created, while weed-trimmer line usually requires adhesive to ensure loops stay in place. I often use appropriately sized military steel cartridges with the necks cut/ground away to create a straight-walled casing. They can also be fashioned from .38 Special casings to save weight, but are usually sturdier when starting with a steel-blunt or field-point base.

Commercially available Snaros weigh from 225 to 250 grains, so if you can come in under that, you're doing fine. Shooting at flying birds seldom involves shots past 20 yards, so flat trajectory isn't a factor, though you might need a stiffer shaft. On body hits, the blunted tip knocks birds for a loop, while a glancing hit results in the loops breaking wings or necks. Still, it's a good idea to employ birddogs because birds seldom fall dead and are easily lost and wasted. MP

The author enjoys pursuing grouse and snowshoe hares atop snowshoes during cold winter months. He lost many arrows to swallowing snow before creating snow blunts that use a dished-face blunt and spoking weed-trimmer line to prevent burrowing.





SPOT-AND-STALK PRONGHORN HUNT

A BOWHUNTER BEATS TOUGH CONDITIONS ON THE OLD WEST'S PRAIRIES

By Darron McDougal

slight crest and ankle-high prairie grass were all that separated me from the lone antelope angling my way. It was feeding on sunparched grasses when I zapped rangefinder readings for distance confirmation. Within range but slightly obstructed, she would soon be in full view, if her course continued. I drew my bow.

In true pronghorn fashion, the doe spotted me when she stepped out, but curiosity drew her closer. I abandoned my earlier rangefinder reading and estimated the yardage. I bracketed my pins on her chest and shot. My arrow entered perfectly where white meets tan, and because she ducked away as the arrow arrived, it deflated both lungs and angled upward into the spine. The old goat was finished within seconds. I thanked God for letting me punch my tag.

A Slow Start

My public-land South Dakota antelope hunt was far from a thriller. Tough winter and spring conditions had recently wiped the region of goats—many died, others migrated just to survive. After a full day of scouting before the August opener, my brother and sister, Marc and Clair, and I determined numbers were scarce. I planned to shoot any buck.

Before dawn on opening morning, we popped a Double Bull blind near an open gate where one decent buck was courting 20-some does between pastures a day earlier. The herd had split overnight, and now the buck was 400 yards away from the gate tending only several does. The other does crossed beneath a fence about 50 yards behind our blind, but I passed hoping the buck would eventually wander closer.



"Every spot-and-stalk antelope hunter should practice stalking and shooting extensively before hunting."

Pre-season scouting can help you locate prospective antelope to stalk when the season opens. Unless you're bent on a specific buck, have several antelope to stalk, and keep your options open.

By 11 a.m., our blind felt like an oven. The buck wasn't coming closer, so we deployed plan B, which was approaching him using a black bed sheet. We hoped it would replicate an Angus cow. The plan was working until one doe became suspicious and immediately circled to get our wind. She blew the gig, and the goats disappeared behind a cloud of dust. It was on to plan C.

After collapsing our blind and reaching the road, we noticed cows had licked and slobbered all over my car, adding insult to injury.

Somewhat discouraged, we drove dirt roads and glassed every worthwhile walk-in area we could find. We encountered several other hunters during our travels, so it became obvious the few goats we'd spotted while scouting were quickly relocating to evade the pressure. In fact, the only antelope we saw all afternoon were four bucks in wide-open grassland. I tried stalking them, but they caught my movement when I was 100 yards away. They were gone instantly.

My original plan was to hold out for a buck, but I soon decided I'd settle for a plump doe if we found one to stalk. This was my third antelope hunt, and my previous two had been unsuccessful. I wasn't leaving without a goat, if I could help it, but I knew I'd need to take what I could get.

Soon after reevaluating my standards, we spotted the lone doe referenced at the

[PRONGHORN HUNT]

beginning of the article. Though not a trophy buck with handsome coal-black features, she was well-earned and provided excellent red meat. Honestly, I believe taking any spot-andstalk antelope with archery tackle is a trophy worth celebrating.

I've hunted antelope successfully a few more times since then, and I've gathered several tips that help me get close during tough one-on-one situations. Like my hunt's beginning, you'll find ground-blind setups don't always produce the action you hope they will. When that happens, deploy a killer spot-and-stalk approach to notch your tag.

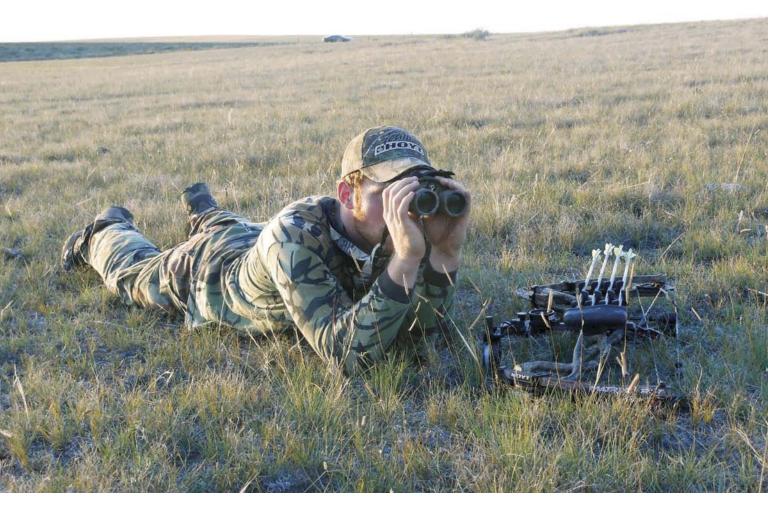
Always Obey the Wind

An antelope's sense of smell may not rival a whitetail's, but they'll beat you most of the time if you approach from upwind. I was a young teenager during my first antelope hunt, and at the time, I wasn't wind wise. I got busted a lot because I disregarded the wind.

I don't care how approachable your target goat is, you won't get archery close with poor wind. I now carry a wind-checker bottle so I can get minute-by-minute wind info before and during my approach. Bottom line: only stalk goats with the wind in your face to avoid a face-in-palm ending.

Shooting from a kneeling position is commonplace when stalking pronghorns with archery gear. Become familiar with this and other shooting positions during practice well before your hunt.





Pronghorn country is mostly open with little cover. Keep a low profile to avoid being spotted, and only move when antelope are relaxed and feeding or looking the other way.

Study Terrain for a Concealed Approach

Antelope have gargantuan eyeballs that give them binocular-like vision, and they're positioned for an incredible field-of-view approaching 360 degrees. They inhabit wide-open prairies, which can make stalking them seem hopeless. Often, they can see you if you can see them, if not sooner.

Unlike other big-game animals, antelope feel completely comfortable in the open. This makes them very visible all day long. But, their

phenomenal eyesight makes them difficult to stalk.

Once you locate a target pronghorn, closely study the surrounding terrain for subtle ditches, drainages or sage bushes that can disguise your approach. Distant goats may appear closer to specific objects or terrain features than they actually are, so pick a route that brings you as close as possible while keeping the wind in check. You don't want to run out of cover before you're within shooting distance, although this may happen a few times if you're new to stalking. In fact, it still happens to me occasionally.

CHOOSE THE RIGHT SIGHT

Many whitetail hunters go pronghorn bound with a one-, two- or three-pin sight. Such sights are more than sufficient for typical waterhole ambushes, but usually fall short in stalking scenarios. The hunter is left to hold their bottom pin high, or pass the shot altogether. Neither option is ideal.

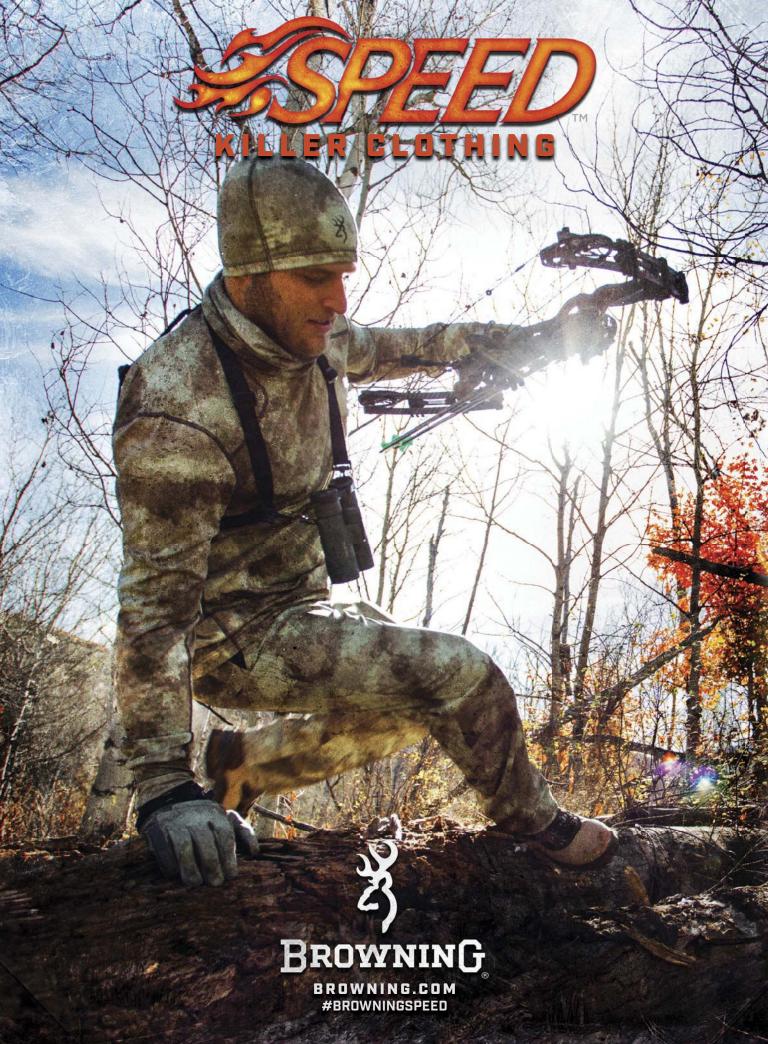
The market offers excellent sights for spot-and-stalk hunters, and I'm particularly fond of Spot-Hogg's Tommy Hogg, Trophy Taker's Option 6 and CBE's Tek-Hybrid. These sights feature fixed pins with the ability to adjust for the exact yardages when taking longer shots.

Consider this example: Rather than hold your 60-yard pin high for a 63-yard shot, you can adjust the sight for 63 yards. That'll improve your long-range proficiency, especially during an intense hunting situation.

Choose Glassing Landmarks

Inevitably, antelope may move during your stalk. Handle this by choosing landmarks before you begin. This helps you keep tabs on the goats, their location and demeanor, and other goats you didn't see previously that potentially could blow the gig. It also helps you gain a clearer picture of your stalking route so you stay on track. Analyze the situation from each landmark, and if you identify any hitches that could ruin your stalk, make an alternate plan before moving on.

Spot-and-stalk hunters often fail to choose a





McDougal spotted and stalked this mature South Dakota doe in short prairie grass and took her with a double-lung shot.

final landmark from which to take their shot. This adds difficulty to pinpointing the animal once you're within range. The extra commotion it takes to spot your target animal often spooks it before you can take your shot. Predetermined landmarks help you stalk more successfully.

Keep a Low Profile

My number-one mistake as an antelope rookie was moving too quickly. Another mistake I've seen others make is walking upright in view of goats. There's not an easier way to blow a stalk than being conspicuous. Low and slow wins the race, unless you're completely out of view and trying to cut off a moving goat by running.

Most of my stalks involve crawling. If you're physically able, belly crawl when cover becomes sparse. Some successful stalkers tote their bow on their back as they crawl, but make sure to keep all of your movement—including your bow—hidden from the antelope's view. Also,

remember that your head and hat are higher than your eyes, so antelope can actually see you before you see them.

Make the Shot

Every spot-and-stalk antelope hunter should practice stalking and shooting extensively before hunting. Place a deer or antelope target in open terrain similar to what antelope inhabit, then stalk it from several angles and shoot it from various distances. Abandon your rangefinder at times to improve your yardage-estimation skills, and practice shooting in the wind. The prairies are rarely still, and you don't want your first time shooting in wind to be on a real pronghorn when you haven't practiced for it.

Waterhole hunters rarely shoot beyond 30 yards, but stalkers commonly shoot antelope at distances between 40 and 60 yards—sometimes farther. Stalking pronghorns is nothing like sitting a treestand for whitetails. Prepare for the change by determining your maximum effective range.

[PRONGHORN HUNT]

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Accelerate your heart rate by running or doing pushups. Then, grab your bow and shoot several arrows. How often you plug the 10-ring helps depict how far you should shoot while hunting. Simulate realistic hunting challenges during practice to know your limitations, and you'll perform better at crunch time.

Stalking can create a suspense level treestand hunting cannot. In a stalking situation, you've located the animal you want to shoot. Instead of waiting for it to walk underneath your elevated ambush, you're moving closer. You're orchestrating the shot opportunity. The moves you make determine the outcome. You're also at eye level, which puts the odds in their favor. One false move ends the gig instantly. The pressure is on you.

Combat stalking suspense by staying focused on everything you need to do to ensure a successful outcome. If you allow yourself to believe you'll blow the shot, you probably will. Instead, believe you'll make the shot. That positive reinforcement helps you perform consistently under pressure. Treat the actual shot scenario just as you would backyard practice.

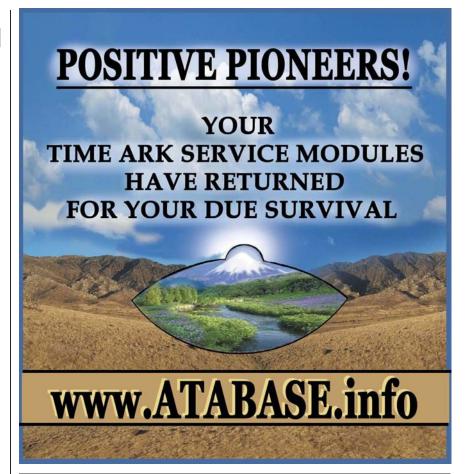
Just Go for It!

Fear of failure prevents many antelope hunters from trading their ground-blind ambush for a spot-and-stalk approach. Sure, staying put in an area goats frequent isn't a bad idea. But that approach won't always land you a shot opportunity, especially if you're hunting an area with skimpy antelope numbers.

An example is when your waterhole setup gets rained out. A prairie soaker shuts down waterholes for a day or longer, which makes hunting them senseless. Adapt to the circumstances and deploy a mobile approach.

I completely understand the hesitation most hunters experience when deciding whether or not to stalk, but sometimes, you just have to try it. Experience is the only way to become a deadly stalker. What've you got to lose?

If you're dealing with tough goats, consider the details I've covered here, and strike off on foot to notch your next antelope tag. MP





·BUSHCRAFT·

Natural Ambush

CREATE A GROUND BLIND FROM WILD INGREDIENTS

By Patrick Meitin

unters have been ambushing game from natural blinds for millennia. Spear-wielding Neanderthals likely used them to ambush wooly mammoths. It's still possible to discover rock rings once used by Stone Age Inuit in the far north to ambush migrating caribou along time-worn trails. Archery icon Fred Bear used natural blinds for much of his bowhunting career to bag everything from white-tailed deer to grizzly bears.

Of course, nimrods, especially bowhunters, still use ground blinds to find hunting success, but today, portable pop-up blinds are commonplace. Nothing is wrong with them; pop-ups are handy and deadly effective, especially while bowhunting spring turkeys, though I've also used them to successfully bowhunt elk, deer and pronghorn. The only drawback, especially for blue-collar hunters, is price. Also, leaving it afield can result in theft or damage from curious critters such as bears, either of which rob you of your \$200-\$400 investment. For the public-lands hunter, ground blinds constructed from natural materials offer obvious solutions.

The natural ground blind costs you nothing but sweat and muscle (maybe some wire or baling twine) and, in many instances, proves superior to portable blinds. I say this because nearly all portable blinds must be installed well ahead of season to give game—except turkeys—time to accept them. A natural blind blends better and can usually be hunted the same day it's constructed. While bowhunting pronghorn in Colorado, New Mexico and Montana, for instance, pop-ups seldom produced until they'd been in place at least three days. On the other hand, water-holes guarded by natural blinds—even when quite conspicuous—were visited the same day, even by trophy bucks.





"Archery icon Fred Bear used natural blinds for much of his bowhunting career to bag everything from white-tailed deer to grizzly bears."



Even in wide-open areas where brush blinds stick out conspicuously, pronghorn antelope will typically come into water within range of such a blind the same day it's constructed.



Natural ground blinds also open more options than commercial blinds. For example, I've constructed a couple dozen natural ground blinds throughout the years on the 5,000 or so acres I have permission to hunt around home. I built these in places spring turkeys frequent: pastures, open meadows, defunct logging roads and log landings and farm-field edges. So today, nearly anywhere I get a hot gobbler going, I probably have a ground blind on hand to jump into. This saves the effort of toting a pop-up on run-and-gun hunts, and it opens up many more options than I could possibly cover or afford with commercial blinds left in the field throughout the season. I also have a good number of whitetail blinds ready and waiting, generally placed at sites where a quality stand tree is unavailable, but also in many places where I simply don't want to go through the effort of installing climbing steps and hang-on stands. I can jump into any of these blinds, maybe tidy them up a bit, and I'm hunting.

There are three basic natural ground-blind

styles: natural hollows, brush blinds and pits. Each is useful according to natural cover, available material, the type of game being hunted and special considerations such as wind in relation to scent management.

Natural Hollows

These are actually my favorite natural blinds. They require minimal disturbance and, in the right conditions, can prove as effective as any portable blind. Ideally, you're looking for a situation where a cluster of trees or ground-hugging, droopy-branched trees allow you to literally burrow in and create a nest large enough to accommodate you and your weapon.

As one example, I recall a quick natural blind I made from which a bowhunting client shot a nice 6x6 bull elk at 19 yards on water. A few tightly ringed junipers allowed sawing a handful of branches out of the way, and clearing ground clutter created a silent patch of ground. A handful of branches drooping at the hollow opening created foreground cover,

and an umbrella of tangled overhead branches cast a black shadow into the hollow.

In the inland Northwest where I live, it's more common to find a wall of second-growth firs/pines no more than head high but thick as dog hair. The trick is to burrow in, remove an area of saplings large enough to maneuver a bow inside, and create a shooting port up front. These little hollows turn into shaded caves where you can move and draw your bow undetected. All you really need is a handsaw and clippers.

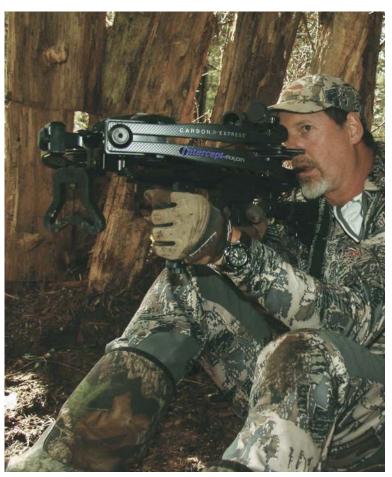
Brush Blinds

The natural brush blind needs no introduction; if you haven't already hunted from one, you've likely observed classic pictures of hunters using them. In their simplest form, they're no more than a horseshoe of cut and stacked brush with a stump or overturned 5-gallon bucket positioned in the rear for a seat. Simple brush blinds have been doing the job for eons, but I put more effort into my brush blinds to increase their efficiency.

I start with a site including three or four appropriately spaced trees, large rocks or stumps. These act as frame posts to anchor a basic lean-to. Then I cut three (for triangle arrangements) or four (for square blinds) stout poles about 4 inches in diameter and hang them in natural forks, tie or wire them in place, or lay them across the tops of large rocks or stumps. Height really depends on what you're hunting with: A bow obviously requires more height, whereas crossbows or firearms require less. When needed, construct a peaked roof with angled, crosstopped ridge poles.

Next, I gather multiple straight, thin poles to act as joists across this roof frame, wiring or tying them in place if necessary to increase stability. Once I've constructed a basic frame, I begin strategically covering it with boughs, cut brush and even bark shingles pulled from rotting logs or stumps, leaving openings to likely shooting lanes. When completed, these brush blinds resemble a pop-up, but they're made completely of natural materials from the immediate area and assembled to melt into the landscape rather than stand out. I've even made such blinds on open prairies while bowhunting pronghorn, planting the beginning frame in postholes (cottonwood limbs loaded into the pickup bed from nearby creek beds) and using sage, bitter and rabbit brush from the immediate vicinity as fillers.

These arrangements are particularly effective for bowhunters because they create an overhead roof that casts dark shadows to conceal interior movements, namely, drawing a bow. During hot early archery seasons or snowy late seasons, they also protect you from the elements.



The author prefers to cover his brush blinds using the posts created by existing trees when possible, securing cross frames to them and brushing over. The overhead roof creates shade and allows more movement inside the blind without detection.

CUTTING TOOLS

Whether burrowing into a natural hollow, building blinds. My favorite saw comes from constructing a brush blind or brushing Wicked Tree Gear (wickedtreegear.com). The in a pit, you'll need some efficient rubber-covered all-metal handle is sturdy and cutting tools. An ax has always non-slip, even when wet, and the served me well in this capacity. Gerber locking/folding blade is spooky sharp and (gerbergear.com) makes several handy able to zip through wrist-sized branches and indestructible versions, from compact lickety-split. Ratcheting pruners, like hatchets to full-sized axes. Another great those from Ameristep option is a heavy-duty machete, which is the (ameristep.com) make most efficient tool for clearing trimming small- to small brush and grass and sturdy medium-sized enough to down arm-sized vegetation effortless trees. Bear & Son Cutlery and are essential for (bearandsoncutlery.com) ensuring small offers the Remington branches don't spoil big shot machete, with 10 1/4-inch opportunities. They're also stainless-steel blade, saw included in an Ameristep pruning kit, with folding saw back, comfortable molded handle and ballistic sheath. and pruning shears, non-A sharp handsaw and pruners stick-coated blades and fiberglass are also indispensable tools for molded handles



Constructing a viable pit blind starts with dedication and a willingness to work hard. It'll always prove more difficult than you envisioned, even in sandy soil. You'll also need the right tools for the job: a shovel, a pick for hard soil, a digging bar for rocky areas and an ax to chop away tree roots.



Author Patrick Meitin took this handsome pronghorn buck from a natural brush blind constructed near water. The natural blind proved much more comfortable than a pop-up, allowing cooling breezes to flow through.

Pit Blinds

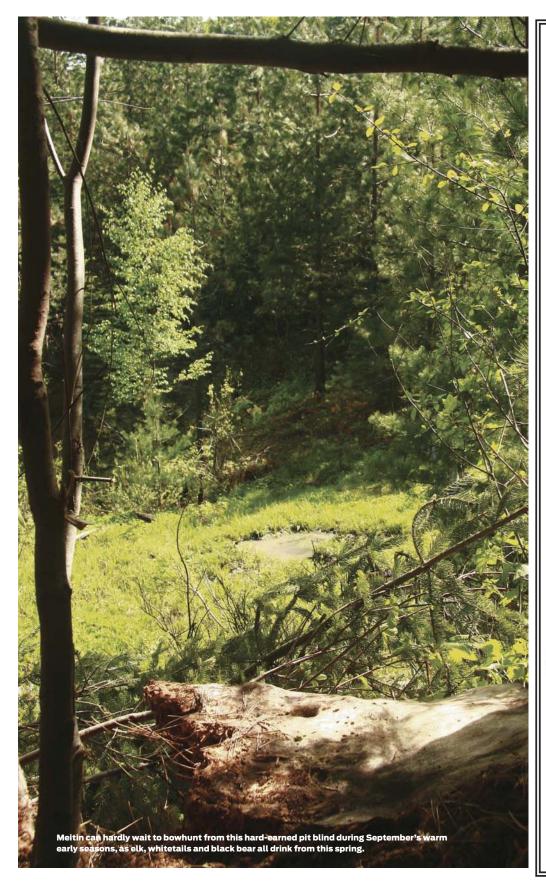
I first occupied pit blinds while bowhunting pronghorn in northwestern Colorado 35 years ago, digging waist-deep pits from hard-packed soil with a pick and shovel and ringing them with clumps of sage and grass collected from around the watering site. On those open desert plains, they offered the only viable concealment. Pop-up blinds were decades from production, and even had they been available, those desolate public lands would have made it easy for a dishonest person to steal them. I've used pit blinds since in a wide variety of situations, though digging is often discouraged on public lands today. Always check state and public-land agency laws before digging, and consult with landowners before excavating on private lands.

More recently, I've found pit blinds useful in areas where scent control proves tricky, no matter the game in question. For instance, I hunt a couple of widely disparate springs near home where elk, whitetail and black bears drink when it's warm. One of these is on a benched hillside, the other a canyon head, both of which offer unpredictable swirling breezes on any given evening. By digging in, I'm able to better contain my scent, including a shelf in the pit side to hold my Ozonics ozone generator/scent destroyer. By sitting in a hole, breezes blow over my head, and the depression contains most of my scent.

It's important, for the sake of cover and scent control, to dig your pit blinds deep enough so that your arrow or crossbow/rifle barrel just clears the front lip while seated. I generally contour a seat into the rear of the blind for added comfort and to minimize movement while setting up a shot or drawing on game with a bow. I also dig them wide enough to allow shooting in any conceivable direction from which game might arrive. Your biggest enemies are hard ground, rocks and tree roots, so come prepared. A good shovel is obviously necessary, but don't forget a pick (for hard-packed ground), heavy digging bar (for rocky ground) and ax (in wooded areas where tree roots are common). Dig until you can't stand it, and then dig some more. I said this was free, not easy.

Of course, a combination of pit and brush blinds is sometimes preferable. I often find digging a little bit gives me just enough overhead clearance to shoot a bow, or makes for a more comfortable seating arrangement. When shooting a bow, sometimes a shallow pit is needed simply to get your legs clear of the lower bow limb.

Natural blinds have been fooling game since man began hunting. You can use them effectively too, saving money, giving yourself more hunting options, and keeping yourself in the game on public grounds where leaving your favorite portable blind or treestand risks theft. MP



ON-THE-GROUND SCENT

Hunters began climbing into trees for many reasons, and scent $\,$ control was large among them. Literally raising yourself above the noses of game is a great way to remain undetected. When hunting from the ground, you must be extra cautious with scent control. At a minimum, keep yourself and your hunting togs as clean and scent free as possible, using UV and scent-free detergents and soaps such as Atsko/Sno-Seal Sports Wash (atsko.com).

The type of clothing you wear also helps. Merino wool (firstlite.com) is naturally antimicrobial, neutralizing the odor of sweat-borne bacteria. Bowhunters should also consider scent-eliminating clothing from companies such as ScentLok (scentlok.com) and ScentBlocker (scentblocker.com), which is hightech fabric that essentially filters away human scent.





Finally, Scent Killer sprays and underarm deodorant from Wildlife Research Center (wildlife.com) are absolutely effective. More recently I've come to depend on Ozonics (ozonicshunting.com) ozone generators. Ozone is a natural odor neutralizer, and an Ozonics machine creates a cloud of odor-gobbling ozone around your ground blind.







"... if someone approaches with mischievous intent, the mere presence of a firearm shows that you're armed and not an easy victim."

A Gun for the Kit

Unless you're in an area where large, dangerous animals roam, you likely don't need to carry a .44 magnum with a 6-inch barrel. Subjects to address may simply be a snake, rabid rodent or a small-game animal. In such situations, a handgun chambered for the .22 LR will perform the job admirably. Moreover, if someone approaches with mischievous intent, the mere presence of a firearm shows that you're armed and not an easy victim. That alone will fend off would-be attackers.

For many years, a kit gun has accompanied many travelers in the outback, and such guns were often .22 LR revolvers. In recent years, revolvers have been replaced by autoloaders to a significant extent for all types of handgun uses. Although revolvers suitable for use as kit guns are still available, autoloaders are also available and often cost less. My current favorite is the Ruger SR22. This little autoloader has a 3.5-inch barrel and weighs only 17.5 ounces, the result of its polymer frame and aluminum slide.

Ruger SR22 Attributes

The Ruger SR22 has numerous features that make it an outstanding kit gun. First, it has an external hammer, and it can be fired in either single- or double-action mode. The SR22 is equipped with dual safety levers that also serve as decocking levers. The magazine release is located behind the trigger guard and





To make the Ruger SR22 operator-friendly among a broader range of shooters, two grips of different sizes are furnished. These are hollow sleeves made of a somewhat pliable polymer, and they slip over the grip frame. In this way, the grip can be made smaller or larger according to the shooter's preference.

A very desirable feature of this small pistol is a fully adjustable rear sight. White dots are located on either side of the notch in the rear sight and one on the rear face of the front sight. Sights on the SR22 are beyond adequate; they're excellent for a "pocket" pistol.

Unlike some economical pistols, two 10-round magazines are furnished with each SR22. Although some magazines that hold .22 LR ammunition are difficult to load, those supplied with the SR22 have a button on either side so the follower can easily be pulled downward to facilitate loading. A handy pouch bearing the Ruger logo and zipper closure is included.

Simple Takedown

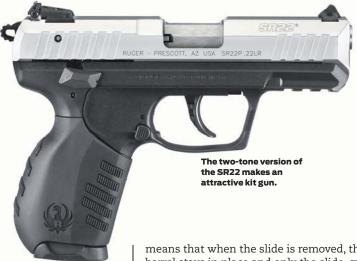
A handgun intended for carry far from home should be easy to maintain. To this end, the Ruger SR22 could hardly be more user-friendly. Like other pistols that don't have the barrel and slide locked together while firing, the SR22's barrel is held rigidly to the frame. That

(top) When disassembled, the SR22 consists of the frame with the barrel attached, slide, guide rod and recoil spring.

(right) The SR22's adjustable rear sight is a useful feature.







means that when the slide is removed, the barrel stays in place and only the slide, guide rod and recoil spring separate from the frame.

It's easy to takedown the SR22. After the magazine is removed, the pistol is cocked. The pivoted takedown lever is located inside the trigger guard at the front and is pulled downward. When it's in that position, the slide is pulled fully to the rear, which forces the hammer slightly downward, and the rear end of the slide is raised to detach it from the rails. Though held firmly, it's able to move forward, which allows it to be removed from the frame.

The guide rod and recoil spring are removed with the slide.

The pistol is reassembled in reverse order while making sure the recoil spring's small diameter end is forced onto the guide rod where it makes contact with a flange. A recess under the barrel accommodates the guide rod's flanged end, and the recoil spring's larger end impinges on the slide's inside surface. No small parts are involved, no tools are required, and all disassembly operations can be performed easily.

On the Range

Some rimfire pistols, especially compact models, are notoriously picky about feeding cartridges. As a result, I was somewhat anxious about testing the Ruger SR22, which proved unnecessary, as the little pistol performed admirably with several types of ammunition with only two feeding failures. Those were with the least expensive bulk-pack ammunition, and at the time, the pistol was new. After those two instances, the pistol has been performing with complete reliability using high-velocity ammunition. The owner's manual states that the SR22 may not cycle with match or subsonic ammunition and that only high-velocity types must be used.

Range sessions with the SR22 are

[RUGER SR22]

surprising. At first, my groups were centered slightly low and left of the bull's-eye. Turning the elevation screw counterclockwise raises the point of impact, and turning the windage screw counterclockwise moves the point of impact to the right. Thanks to the adjustable rear sight, a few turns of the adjustment screws with a small-blade screwdriver brought the group to the point where the top of the post rested on the target. That is my preference because a six-o'clock hold on a rat is not a definitive sight picture.

After adjusting the sight, groups were fired at a target 7 yards from the firing line using a two-handed hold. Now, clusters measuring about 1 ½ inches are easily achieved, and there's no doubt that the SR22 is sufficiently accurate to be a very effective kit gun.

A .22 LR autoloader may not be the most effective handgun for defense purposes, but a skilled shooter with an SR22 is no one to mess with. The accuracy of the little gun is impressive, so eliminating pests or taking small game at short ranges is within its capabilities.

Options and Opinions

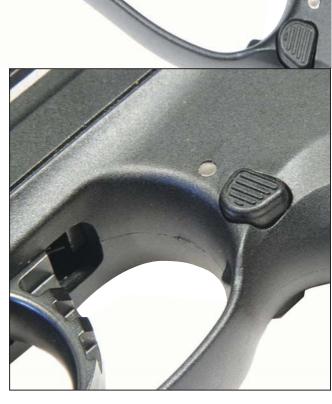
Although my SR22 has a 3 ½-inch barrel, Ruger recently announced that it introduced a version with a 4 ½-inch barrel. The extra length would increase the sight radius and perhaps improve accuracy, but at the expense of portability. The difference in velocity would never be noticed under field conditions. Also available is a version of the SR22 that has a polished aluminum slide that complements the black frame for a very attractive appearance.

The Ruger SR22 isn't my only small .22 LR autoloader, but it's my favorite. It shoots accurately and functions reliably. This nicely finished little pistol has a \$415 MSRP, but usually is available at retail stores for around \$350-\$375. The two-tone version with a polished slide is priced at \$429 MSRP, and a new version with a threaded barrel has a \$459 MSRP.

The Ruger SR22 is convenient to carry, accurate, reliable and easily maintained. It has become a favorite companion on those all-tooseldom outings to remote places. MP

CONTACT INFORMATION

Sturm, Ruger & Company, Inc. 200 Ruger Rd. Prescott, AZ 86301 ruger.com



(top) Disassembly of the SR22 requires the takedown lever to be pulled downward.

(below) The magazine release is conveniently located and operates smoothly.

IDENTIFYING THE DREADED THREE

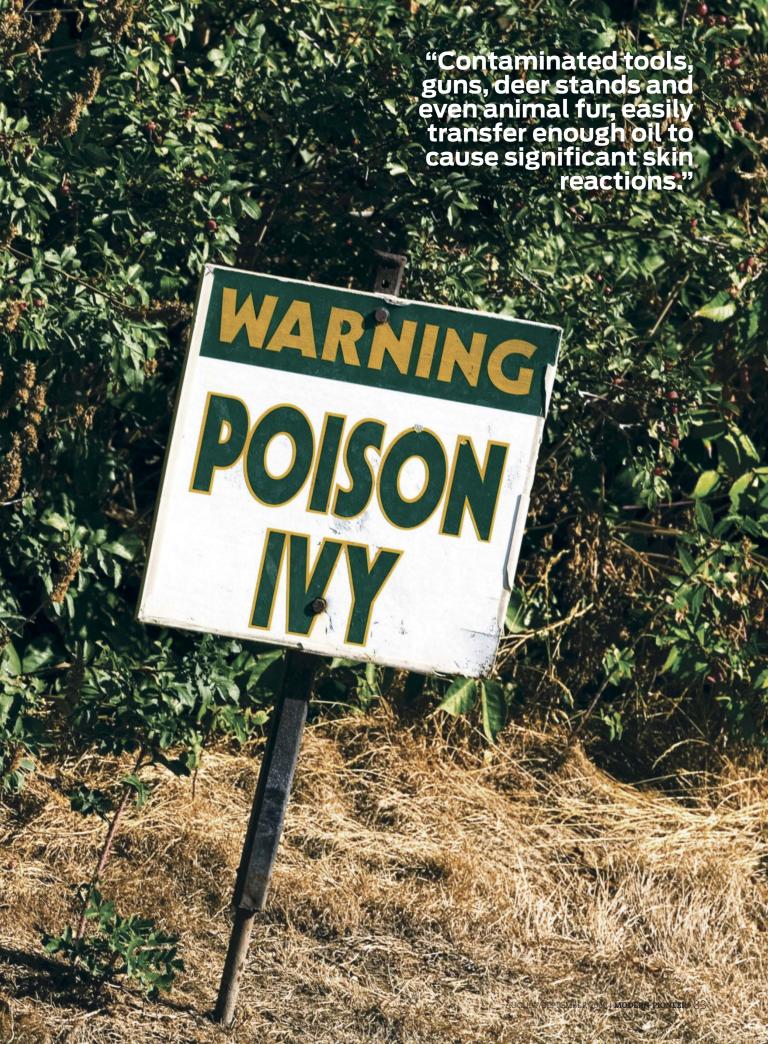
By Kristi Cook

f you spend much time outdoors, whether rambling about in your yard or venturing into the woods, you'll eventually encounter at least one of nature's most annoying creations—poison ivy, poison oak and poison sumac. Yet, despite the prolific nature of these rash-inducing plants, making a positive I.D. can stump even the most seasoned outdoorsman.

Fortunately, there are several key features to look for that uncover their hidden identity before you push past that dangling branch or hang your deer stand in that vine-covered tree. Should you happen to overlook a leaf or two, there are also a few preventative measures to keep in mind as back-up.

POISON IN A POISON POISON POISON POISON POISON SURVINE SURVINE









(top, left) Once you know you have compound leaves, verify that the lateral veining displays an alternating pattern. These plants love to break their own rules, so you may have to investigate multiple leaves to determine the overall pattern.

(top, right) On larger specimens of poison oak and ivy, the leaf stalks resemble the base of celery stalks sitting alongside the branch.

Poison Ivy and Poison Oak

Poison ivy and oak are especially adept at disguising their identity. Taking the form of both shrubs and vines, leaves can range from light to dark green, glossy to dull and hairy to hairless with smooth or saw-toothed margins. And to keep things interesting, these tricksters occasionally produce an extra leaf or two just to keep us on our toes. However, many traits are consistent throughout the two species, simplifying identification.

Step 1. Look for groups of three leaves along each stem, vine or branch. If you see any single leaves, pairs of leaves, five leaves or any other number of leaves, these are signs of impostors.

Step 2. Each of the three leaves will attach to a single stem at the same location, creating a compound leaf made of three leaflets. If you see three leaves that connect even a few millimeters apart from one another, it's not a compound leaf and not poison ivy or oak.

Step 3. The middle (terminal) leaflet will have a noticeably longer stalk (petiole) than

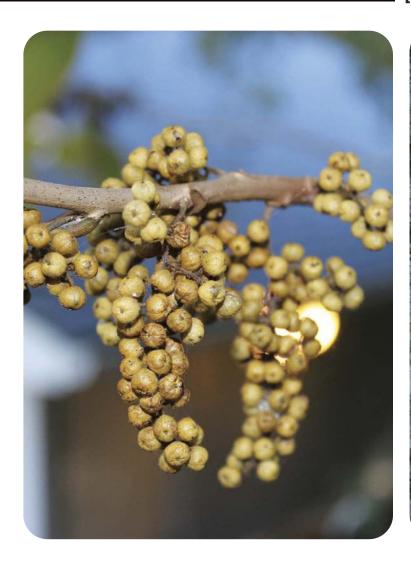
the two side leaflets, which may appear to be stalkless. If all three leaflets are stalkless, or if stalks are all the same length, it's not poison ivy or oak.

Step 4. Locate any leaflet's main vein, which runs directly down the middle. Lateral veins radiating from this central vein should be somewhat staggered in an alternate pattern. However, because poison ivy and oak like to play tricks, you may have to observe several leaflets, because they'll often produce a few leaves that don't have an alternate pattern. If you see that all of the leaves have an opposite pattern, or run directly across from each other, it's likely not poison ivy or oak.

Step 5. Compound leaves will be attached to the vine or branches in an alternating pattern. If you see leaf clumps at the base, whorled around a branch in a circle or directly opposite one another, you don't have poison ivy or oak.

Step 6. Leaf stems look a lot like celery stalks at the point where they connect to the branch or vine. Like celery, you can see where the leaf would easily peel off the branch.

[POISON IVY, OAK AND SUMAC]





Unfortunately, this trait is more readily visible on larger plants, and is often indistinguishable on young specimens.

Step 7. In spring, look for clusters of white to pale-green flowers dangling from leaf axils (the angle created where the leaf stem connects to the vine or branch). In late summer to early fall, these flowers will be followed by drupes or dangling clusters of offwhite, pea-sized berries resembling peeled clementines with lines or indentations creating segments around the entire berry.

Step 8. If only a vine is visible, look for aerial roots so prolific the vine appears to be covered in coarse hair (although, this is not always present). Poison ivy and oak vines will also climb straight up, or maybe a little zigzagged, but will never twine around an object.

Poison Sumac

Sumacs are likely the most commonly mislabeled species of the three poisonous plants discussed here. Several varieties of nonpoisonous sumacs exist, with many being used for ornamental purposes. Fortunately, poison sumac prefers to keep things much simpler than poison ivy and oak do, which makes identification of this rather large shrub, or even small tree, much easier.

Step 1. Look for five to 13 ovate (egg-shaped) or elliptical leaflets in an opposite pattern on a single, smooth stem. Lance-shaped leaflets in an opposite pattern will never be present on poison sumac, nor will the stems ever have hair or wings on them—these traits always indicate either non-toxic sumac or another plant species altogether.

Step 2. The leaves of poison sumac always have smooth edges. Non-toxic sumacs, on the other hand, have jagged or saw-toothed edges.

Step 3. In early summer, look for upright clusters of whitish-green flowers located in the leaf axils. Waxy, shiny and hairless white berries in drooping clusters follow in early autumn. In contrast, all non-toxic sumacs produce upright clusters of white to green flowers at the stem ends and are followed by red, hairy and upright berry clusters.

(top, left) In late summer to early fall, look for whiteto cream-colored berries hanging from leaf terminals.

(top, right) Hairy vines growing mostly straight up the tree are good indicators of poison ivy or oak.

HOME REMEDIES

Despite our best efforts, many of us are tortured at least once a year with the irritating burning itch of poison ivy, oak or sumac. While it's certainly possible to ease your suffering with Benadryl or other anti-itch creams, natural remedies do exist and work quite well. The next time you feel that burning sensation, try one of these treatments before heading out to the store.

Oatmeal Paste. Cook a small, but thick, batch of oatmeal and allow it to cool to lukewarm temperature. Gently smear the paste over the affected area and cover with gauze or clean cloth. Allow the paste to dry and reapply as needed. You can also use oatmeal powder in a warm bath for a soothing soak.

Baking Soda. Mix baking soda and water to a thick, toothpaste-like consistency. Gently smear over the affected area and cover as you would with the oatmeal paste.

Witch Hazel. Witch hazel is good for anything that itches, especially when applying a sticky paste and wrap is inconvenient. Spray undiluted as needed to ease itching and burning.

Bleach. Desperate people itching to high heaven will try anything. I learned this trick from my brother. Once the blisters burst open, pour bleach on the area to dry the blisters. If you simply can't handle the itching until the blisters break, you can burst them yourself with a sterilized razor or other device. Then pour the bleach on. It burns. It's not wise, it's not natural, and it's probably hazardous to your health—but it works.





Step 4. The final test for poison sumac is location. Poison sumac prefers wet feet and lives in wet, often swampy or boggy conditions, while all non-toxic sumacs prefer much drier ground.

An Ounce of Prevention

No matter how many times you positively identify each of these toxic plants, you'll inevitably cross paths unaware with at least one. And within 12 to 72 hours of exposure (possibly even longer), you'll be unpleasantly surprised with a blistering rash and have no idea how you got it. A little extra protection goes hand in hand with identification tricks to keep yourself rash free.

The cause of the rash, urushiol, is present in every part of all three species—stems, leaves, berries, branches, flowers and even the smallest roots—regardless of the season. To keep this oil from contacting your skin, wear long pants tucked into boots and a long-sleeved shirt. If you're going to be handling vegetation in any way, you should also don gloves, as the slightest bruising of plant tissue releases the oil.

While direct contact is the most common

method of transmission, urushiol may be transmitted to skin via indirect contact, as well. Contaminated tools, guns, deer stands and even animal fur, easily transfer enough oil to cause significant skin reactions. Inhalation of urushiol-infused smoke from burning poison ivy, oak or sumac can also cause severe, even life-threatening, allergic lung reactions, so only burn what you can positively identify is not one of these plants.

Once you're out of the woods and back home, remove your shoes and clothing. Throw washables, including gloves, into the washer and wash with detergent and warm water. Any items that can't be washed in the usual manner, such as shoes and hunting equipment, can be cleaned with rubbing alcohol to effectively remove any oils. Then, throw yourself in the shower (not a bath) and wash with cool water and soap. Rinse several times to avoid leaving any residue behind.

Commit these tips to memory or carry them in your pocket to keep your next hunting trip or hiking adventure rash free. If still in doubt, take good quality photos to your local extension office for a professional evaluation before handling unidentified plants. MP

(top) Poison sumac displays elliptical or oblong leaves with flowers growing in the leaf axils rather than branch tips.

PHOTO FROM WIKIPEDIA

(opposite) Flower clusters at the tip of sumac branches are sure indicators of nontoxic sumacs.



ike many outdoorsmen, I've huddled around roaring campfires countless times. Of those, many were in hunting camps during the dead of winter when it was necessary to spin around like a piece of meat cooking on a rotisserie just to stay warm. But as challenging and difficult a some of those times have been, the kidding, storytelling and shenanigans make those campfires some of my fondest memories. Even during warm weather, sitting around a roaring fire just seems to soothe the mind and sou In an effort to pass on those great traditions to my

CREATE A BUDGET-FRIENDLY, FEEL-GOOD ATMOSPHERE

By Thomas C. Tabor

ike many outdoorsmen, I've huddled around roaring campfires countless times. Of those, many were in hunting camps during the dead just to stay warm. But as challenging and difficult as storytelling and shenanigans make those campfires

roaring fire just seems to soothe the mind and soul. In an effort to pass on those great traditions to my children and grandchildren, we built a fire pit in our backyard. Of course, sitting around a neatly constructed fire near your home isn't exactly like a wilderness adventure, but it still fosters great times and lasting memories.





Once completed, your firepit area can provide years of enjoyment.

Choose the Right Location

We live on a hillside with hardly any level ground, so we hired an excavating contractor friend to level a spot for the project. Even though it required more work and money, it turned out that notching the hillside produced a nicely sheltered area away from the wind, ensuring that sparks and live ashes aren't blown to a grassy, adjacent hillside.

Obviously, most backyard fire-pit projects don't require excavating services. Still, sufficient thought must be given to finding the best possible location. In order to keep fire danger at bay, access to a reliable water source certainly must be considered. It's also a good idea to place it close enough to your home so transporting dishes, food and eating utensils doesn't become an unnecessary burden.

Further, trees must be far enough away from the actual fire pit so the heat doesn't damage them. Keep in mind, though, shade provided by trees is nice to have. Also, smoke could become an issue if it should blow into your home or your neighbor's, so consider your area's prevailing winds before you solidify your fire-pit plans.

Add Ground Cover and Containment Barriers

Many people use prefab concrete pavers, or even pour a concrete slab around the area, but I personally prefer a more natural appearance. Our excavator friend suggested a load of rock—typically used for drain fields—to cover the ground surrounding our fire pit. It's cheaper than most options and works great.

This type of aggregate is typically noncrushed round rock with a mean average diameter of about 1 1/2 inches. Round rock like this works poorly on sloped surfaces because it tends to roll underfoot. On relatively flat ground, though, it works perfectly. Pea gravel and the other smaller rock varieties can more "I've huddled around roaring campfires countless times ... during the dead of winter when it was necessary to spin around like a piece of meat cooking on a rotisserie just to stay warm."

easily be carried out into lawn areas, and during wet conditions may sink into the soil more easily. However, it's recommended to only lightly cover the soil with this rock; multiple layers may encourage the rock to roll underfoot when walked on.

In most cases, some form of barrier is necessary to contain the rocks and prevent them from working into the grassy areas of your lawn or into flowerbeds. In the past, I've used rolled-rubber products for these types of borders, but I personally prefer treated 2x6s when possible, which are easier to install and provide a sturdier barrier. Concrete landscaping blocks also can be used, but treated 2x6s are considerably cheaper.

Incorporate Character and Retaining Walls

A totally flat area can look boring, so if your land allows for it, a little terracing adds eye appeal. Many homeowners use retaining-wall blocks and pavers purchased at their local hardware store for terracing and to form retaining walls. Though tasteful, that option gets very expensive.

Alternatives as cheap as the gas needed to haul them can be found at your local engineering firm. Engineering companies that bid on government concrete jobs are required to certify that their concrete meets governmental strength and durability standards. They determine this by pouring concrete samples in order to hydraulically test them. These samples typically take the form of cylinders that measure 12 inches long and 6 inches in diameter and weigh about 30 pounds apiece. Once those cylinders have been tested, they're considered refuse with no further value to the company. For that reason, most engineering firms willingly let people haul them away. Best of all, they can be used in various ways



Once the excavation work was completed, the real work began on the Tabor family fire pit. Because of the weight of the concrete cylinders, multiple trips were made to a local engineering firm until enough cylinders were procured for the project.



In order keep the drain rock contained, Tabor likes to use treated 2x6s backed by large rocks to maintain their placement.



An old truck-tire rim makes an excellent fire-containment ring. Allowing the rim to stick a few inches above ground helps contain wayward ashes and coals. And, by adding flat rock around its outer edges, you'll disguise it.



Concrete cylinders like these are often free for the taking from engineering companies and make very attractive and highly functional retaining walls.



Decorative posts can easily be made by forming a coil of heavy-gauge livestock mesh wire, then filling it with large rocks.

"Most tire shops dispose of old tire rims when they've become bent or otherwise damaged. and often willingly give them away."

around your yard for borders and terracing.

In some cases, the cylinders are damaged, so it's usually necessary to search through the pile and choose the ones that best fit your needs. Once you have your supply of cylinders at home, simply lay them out side by side, generally as close to one another as possible, adding rows as needed to achieve the desired height.

In order to locate a cylinder supply, scan your telephone directory's Yellow Pages. Generally, you'll find these companies listed under categories like "Engineers; Professional" or "Engineers; Consulting," and it may take you several calls to land a supply.

Construct a Fire Ring

Many hardware stores sell fire rings specifically for projects like this. They come in various configurations, and most are quite attractive. The downside to these commercial products is that they're often made of thin metal that will burn out over time. Plus, they can be expensive.

Another alternative is to use a truck-tire rim. I know this doesn't sound all that attractive, but it can be. Plus, a tire rim is made of metal heavy enough that it will never burn out. I prefer truck rims to car rims simply because they're generally a little larger. Tractor rims work great, too, particularly if you prefer large fires. Most tire shops dispose of old tire rims when they've become bent or otherwise damaged, and often willingly give them away.

After getting the rim home, you should first remove any lead counter weights placed

SALVAGE A FIRE-PIT GRILL

Rather than purchase a regular barbeque grill for their fire pit, some folks scavenge wire shelves from an old refrigerator, but that's probably not a great idea. Some people believe the metal plating used on those products isn't always safe for food preparation.

If you want to avoid purchasing a grill for your fire pit, consider seeking out an old, warn-out propane or charcoal barbeque. The heat plates and burning elements in barbeques usually burn out long before the metal grills do. If you see a barbeque destined for the scrapheap, check it for a potential grill for your fire pit.

around the edges, then dig a hole for the rim to sit in. The rim should be placed in the hole with its deepest portion facing upward. I like to bury it so several inches of the rim remain above ground level. This helps disguise it, and the lip above the ground helps to better contain ashes. A typical rim has holes around the perimeter, which can actually help to draw air into the fire for better combustion.

Decorate the Scene

If you're lucky enough (or possibly unlucky enough) to live in an area with an overabundance of rock, like we do, those rocks can sometimes be put to good use around your yard and fire pit.

Flat rock can be placed as a border around the edges of the tire rim to enhance its appearance and control wayward ashes. They can also be used to form borders or terraces, and even to produce decorative posts. In order to use them for post construction, you should start by forming a circle using 4- or 5-foot heavy-gauge livestock mesh wire. If you make the posts too large in diameter, the weight of the rock could distort the post's shape, so it's best to restrict your post diameter to no more than 2 feet.

After you have the wire circle formed and the ends of the wire well secured, you should

CONTROL GRASS AND WEEDS

Some people attempt to deter weeds and grass by laying down a piece of Visqueen plastic, then covering it with rock or bark chips, but this isn't the most effective approach.

Even though it somewhat deters unwanted weed and grass growth, it also doubles as a barrier against rainwater and the soil below. Additionally, the plastic's surface is very slick. Your rock or bark chips will eventually slide and expose the plastic to the sun's ultraviolet rays. This causes it to quickly deteriorate.

A much better solution to prevent weed growth around your fire pit is to use a fabric intended specifically for that purpose. Companies like DeWitt, Tapar, Scotts, Sta-Green, Promat and others all produce materials that'll work much better than Visqueen for this application. Most hardware stores and nurseries carry these products, as do stores like Lowe's, Home Depot and Wal-Mart.

level a spot for the post to rest, but make sure the ground beneath is well packed so the post doesn't lean. After that, all you have to do is stand the cage on end and fill it with rock.

Conclusion

Constructing a fire pit always requires some measure of work and planning, depending on how simple or elaborate you want it to be. Regardless, the end result creates an atmosphere that soothes the mind and soul. MP

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"The bears will have patterned you to some degree, so don't make any drastic changes right before or during your hunt."

Location, Location

Most of my DIY bear-baiting takes place on public lands where others are also baiting and hunting. Competition can be intense, so my location must be precise, and a bear must have everything he needs within close proximity, water being the most important resource.

From late summer into fall, bears are in a state known as hyperphagia, which means they're fattening up as much as possible. Their daily lives revolve around adding fat to get them through winter hibernation. They may eat as many as 20,000 calories daily, and they must drink lots of water to help digest all those calories. With their black pelts and thick fat layer, they also use water to stay cool.

If your bait is placed too far from a water source, your target bear may get up and stretch as the sun drops below the treetops and begin working toward your bait. He probably won't arrive until dark.

I usually place my bait site within 150 yards of a lake, river or swamp. I also like to be in thick cover. Bears don't like to expose themselves during daylight and are reluctant to cross open areas or move through old growth canopy forest until darkness falls. Give them a corridor of thick cover to move through by placing your bait in an area with plenty of underbrush near water.

Stand access is another key factor to your location. You must get in and out with minimum disturbance; this goes for baiting and hunting. Bears that feel hunting pressure often become nocturnal. Plan your location so you can sneak in and out.

Baiting Strategy

I attribute most of my bear-baiting success to using the right bait at the right time in the correct amounts. Bears eat nearly anything, but certain baits are more effective attractors.

Ever eat a really sweet dessert and about halfway through, you realize it's so rich you can hardly finish it? Or maybe you've eaten so many snack foods at a Superbowl or Christmas party that you can't stand the thought of anything sweet? I'm convinced bears get those feelings, too.

When I started seriously baiting 15 years ago, I had access to lots of pastries, and that's all I used. The bears piled on them for about a week to 10 days, and then action slowed. I blamed it on the acorns dropping and other factors. What was really happening was the bears were getting that "blah" feeling of eating too much sugar in a short amount of time.

That's why I'm convinced that a variety of baits, including some that mimic natural food sources, are important. They love sweets, but over time, trail mix and granola mixed in with the sweets will hold them better. Also, if natural foods, such as acorns, hazelnuts and berries compete with your baits, using natural bait will keep the bears from abandoning your sites altogether.

Additionally, bears can get sick from too much unprocessed chocolate. Loading the bait sites up with lots of chocolate, especially dark chocolate, is counterproductive, because bears will avoid it after a few days. A little chocolate is good; a lot is not.



Keep in mind that bears are individuals, some like certain baits and some prefer others. In order to make everyone happy, distribute various options at each bait site. States and provinces have varying laws governing baits. You're responsible for knowing and following local regulations.

I use commercial scents when I first set bait sites, then I give them a shot of spray scent each time I bait or hunt. I use scents made by Northwoods Bear Products, and my favorites are cherry, blueberry, shellfish, Gold Mist (it smells like a combination of caramel and butterscotch) and bacon. Bears can smell it from long distances, and it helps attract them more quickly.

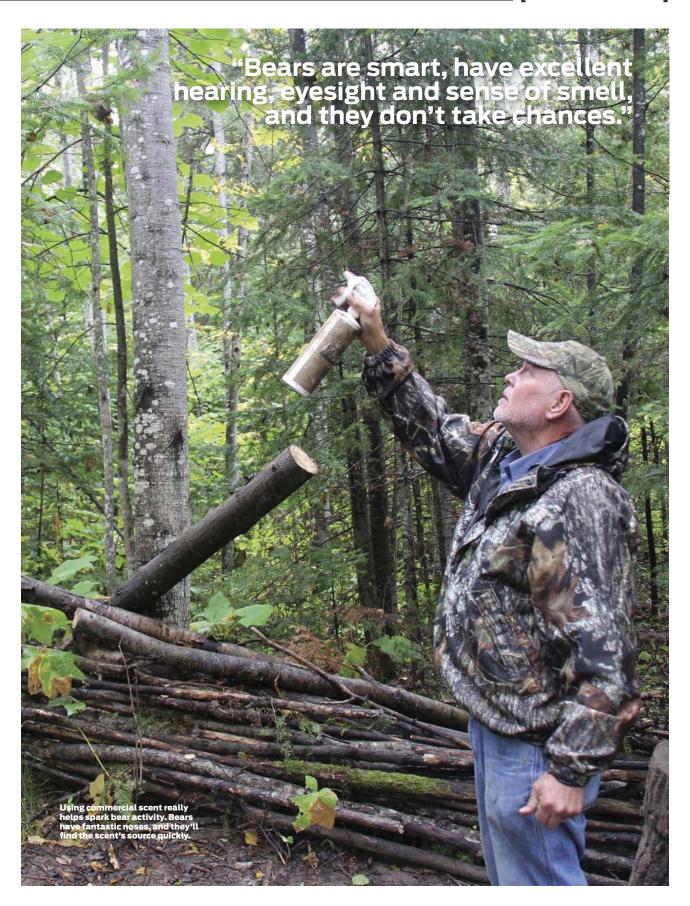
For bait, I've had my best success using a combination of fruits, pastries, candies and trail mix. I buy the candies and trail mix from a bear-bait vendor, Lucky 7 Bear Bait in Cambridge, Minnesota. I pay \$85 for a 55gallon drum of trail mix, and 30-pound boxes of fruit snacks and gummy bears are \$8. I get outdated fruits and pastries from a local

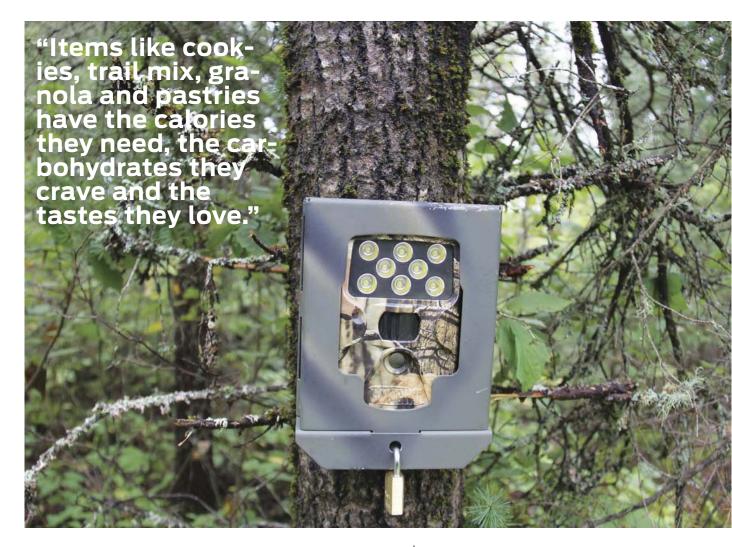
supermarket. I have five chest freezers full of pastries and beef trimmings when the baiting season opens two weeks before our Minnesota bear-hunting season begins.

Bears aren't efficient predators, and they relish meat when they can get it. Beef-fat trimmings work really well, but only once the bait is being hit consistently. Warm weather quickly spoils them, and bears rarely eat them once rotten. I freeze the beef, and then put it out in large blocks once bears start coming in daily. They devour it with gusto.

I know bears have been shot by hunters who put out rotten meat or fish, particularly when there's a shortage of natural foods, but I can tell you from experience that fresh food is far more effective. Items like cookies, trail mix, granola and pastries have the calories they need, the carbohydrates they crave and the tastes they love. Keep it fresh by putting out just what they can eat before your next rebaiting visit.

Though bait sold by suppliers may appear spoiled or outdated, more often it consists of







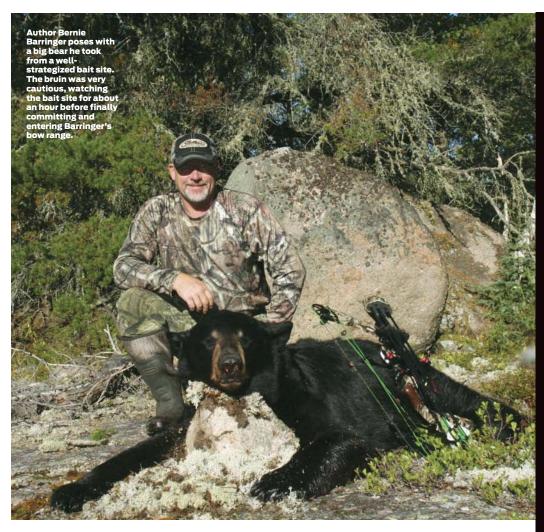
 (top) Scouting cameras are a fun part of bear hunting, and they offer chances to learn the habits of bears using your bait site. (bottom) Tracks and sign aren't that important in bearbaiting, but they help give you confidence. Find the right location and use the right baits and scents, and bears will come.

overruns and factory closeouts. It's often fresh and tasty, both to the bears and the bearbaiters (try not to nibble too much). The myth that bears are best baited with rotten stuff isn't true. Plus, every bear I shoot becomes food for my family, and they taste better when fed fresh bait.

Human Intrusion

People commonly question how often they should bait. I've found that it's never good to have bears show up at your bait and find nothing to eat. This is doubly true when other hunters have baits nearby. When you go in to bait, minimize human-scent dispersion around the bait site by touching as few things as possible. Young bears sometimes tolerate human scent, but wise old boars rarely do.

When baiting in highly competitive areas, I spray down with Scent Killer to help reduce my impact, and bait the site daily with a couple of buckets full of goodies so every bear that shows up is rewarded. In locations where other hunters aren't nearby, I put out 300-400 pounds of bait and stay away for a



few days to a week so the bears get accustomed to the site.

These days, I only bait with an ATV on private land. Using an ATV on public land leaves behind sign everyone can see. Inconsiderate people will often follow ATV trails and leave their scent around bait sites, spook bears off baits, and even steal scouting cameras.

I walk to public-land baits, and I even try to use multiple trails to access them. More people use the woods than we realize and some are pretty snoopy. Others just end up at your bait by accident, like a grouse hunter who simply walks an ATV trail because the going is easy. The best-case scenario is a bait site without traces of scent from other humans. I run my baits between 10 a.m. and 2 p.m. to minimize the chances of spooking a bear off the bait.

Get it Done

Once bears are frequenting your bait site and the season opens, it's time to make it happen. The bears will have patterned you to some degree, so don't make any drastic changes right before or during your hunt. Use the same scents and lures you've been using. Don't throw a curveball that could put them on edge; they may hang back and wait until dark if they perceive something has changed.

If you've been baiting at 2 p.m. each day, get into your stand to hunt at 2 p.m. Many times I've watched mature bears go where I walked in and smell my ground scent. If it's fresher than normal, they may leave. Use the wind to your advantage whenever possible and be still on stand. Bears notoriously sit back and watch a bait site for an hour or more before coming in. Don't believe the myth that they have poor eyesight.

In Closing

These suggestions are only the tip of the iceberg. I've covered much more detail in my book The Bear Baiter's Manual and my DVD How to Bait Big Bear. The best teacher is experience, so get out there and enjoy the excitement and benefits of hunting black bears over bait.

SCOUTING CAMERAS

I love using scouting cameras at bait sites. I'm always eager to check out photos of bears visiting my sites; it's like a sport in itself. In my experience, bears aren't alarmed by flash photography, but bears are individuals, and a few have shown signs of shyness around a bright flash.

Once bears get comfortable around the bait, they'll usually begin messing with the camera. I combat this by putting cameras up high where bears seem to be less interested in them. I also use bearproof boxes as much as possible.

I often use two
Covert cameras aimed
at a bait site: one set to
take photos and one set
to take videos. I set the
delay on my photo
cameras at three
minutes so I don't have
dozens of photos of a
bear that spends an
hour or more at the bait.
When setting cameras
for video, I like a 30- to
45-second video every
five minutes.

Cameras offer so much useful information that they've become an integral part of my bear hunting. They help me know which bears are coming when, and they allow me to make the best choice for which bait site to hunt on any given day.



ROUGH IT SMOOTHLY WITH A PIONEER FAVORITE By Kevin Estela



leep is an absolute necessity.

Considering that approximately one-third of your lifetime is spent asleep, quality rest is important. In an era when the backpacking community obsesses over featherweight gear, manufacturers often skimp on materials for the sake of pounds and ounces. Of course, discomfort results, which significantly inhibits sleep.

Weight and space considerations aren't always factors we should concern ourselves with. Lightweight sleeping pads, bags and bivies may be the right choice for the ultra-light hiker, but hunters, car campers, cabin campers and modern bushcrafters may find a bedroll more fitting.

Traditionally carried by cowboys, the bedroll holds a relevant place in our modern world. Having all of the necessities for a quality night's sleep in the modern bedroll can be beneficial to modern outdoorspeople looking to house all sleeping arrangements in one convenient package. The modern bedroll and its components might be the right formula for much-needed sleep in the bush.





The Ellis Canvas Tents Cavalry bedroll is cut large enough to hold a full-size pillow for unequaled backcountry comfort.

5 TIPS FOR SAFE, SOUND SLEEP

Here are a few expert tips to optimize your time in your swag or bedroll:

HYGIENE

Before turning in for the night, change out of damp clothes and clean up with a personal towel or moist towelettes. Dry and apply baby powder or similar foot powder to your feet.

WARM WATER BOTTLES

Immediately before bedtime, warm some water and put it in your metal water bottles. Tighten the lids and tuck them inside extra socks or a spare shirt. The bottles will warm the bag before you get in, and your body heat will keep the bottles from freezing.

HAND WARMERS AND TWO SOCKS

For those with poor circulation or who complain about cold feet, wear two pairs of socks and sandwich a handwarmer between them. The two socks keep the handwarmer in place and prevent direct contact with your feet.

SLEEP SUIT

A lightweight hat and neck gaiter or hooded top will cut drafts normally felt around the neck. Awake or asleep, heat is lost through the head, and a head covering will keep the body warm and maximize its metabolism. This sleep suit should be kept dry, changed into before going to bed, and changed out of when awake.

SUGAR AND FAT

Sugar metabolizes quickly, while fat metabolizes slowly. Right before sleeping, consume something that has both sugar and fat like hot cocoa with butter, peanut butter and chocolate or buttery shortbread cookies. This will help your body stay warm as you fall asleep.

The Importance of Sleep

Sleep when you're dead: Many hard-charging outdoorsmen subscribe to this old chestnut. In the great outdoors, sleeping-in wastes precious hiking, fishing and hunting time. Then again, prior to any highly-anticipated trip, sleeping well isn't always possible given racing thoughts and anxious minds, but it's necessary for success. Sleep helps heal the body after a workout, is good for the heart and aids in keeping off excess weight. Psychologically, it reduces stress and improves memory and awareness. It's easy to buy into bravado, but proven scientific research cannot be dismissed.

The modern bedroll isn't a substitute for an actual bed and box spring, but it's a far cry from the most basic sleeping pad and sleeping bag found in many camps. The modern bedroll provides excellent comfort and space, and depending on the material used in the exterior shell, water resistance and durability. It excels where ultra-light options flop.

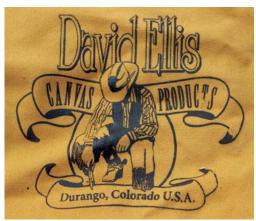
When cabin-camping in a remote location with only walls and a roof for shelter, the modern bedroll can be unrolled and set up as an extended camp. For overland travel, the modern bedroll can be carried and used in the





(top, left) The zippered Cavalry bedroll stores rolled and can be cinched shut with drawstrings on the sides. (top, right) The zippered Cavalry bedroll has a generous head flap that can be thrown over the user in bad weather to shield from the elements.





(bottom, left) The stitching on all Ellis Canvas Tents products is always clean and sturdy. (bottom, right) The Ellis Canvas Tents Cavalry bedroll is made from a unique ranch-colored cotton duck canvas.

back of an SUV. If space is limited, the widebody profile and extra weight pays off by adding comfort, which improves sleep.

The Components DAVID ELLIS COMPANY CAVALRY BEDROLL

The David Ellis Company Cavalry canvas bedroll is at home next to a campfire, inside a hunting cabin by a wood stove, or inside a wall tent surrounded by traditional wood-andleather bushcraft gear. Based on the traditional U.S. Navy bedroll of vesteryear, this version has a generous cut that accommodates multiple wool blankets or the heaviest sleeping bags. Made from an almost-exclusive ranch tan 12.6ounce Army duck canvas, the Cavalry bedroll is tough and will protect your high-end sleeping bag from damage. There's a reason the U.S. Forestry Service and U.S. Border Patrol Service use this very bedroll. It can be beaten up, tossed around, dragged through the dirt and bounced around in the back of a 4x4 and still protect users from environmental elements. It can be used virtually anywhere.

The Cavalry has dual zippers for venting on one or both sides, and a 3-foot head flap covers the bedroll opening during poor weather or cold breezes. In cooler weather,

when mosquitos aren't a problem, the flap can be left open to increase breathability. A 3-inch foam pad is tucked inside a sleeve pocket running the bedroll's full length for exceptional comfort, and the sleeve has a soft, brushed finish. Since the bedroll is rectangular and not mummy-shaped, users can move about inside of it unconstrained. The generous rectangular cut can be unzipped flat to make your bed with folded blankets.

The bedroll has cinch cords that run along the head flap and hold it rolled in place. For added compression, cords attached to the head flap can be used around the circumference. In testing, the tight canvas weave resisted water and kept the insulation inside dry and protected from morning dew and occasional rain. When used by campfires, embers that landed on the duck canvas singed it, but didn't burn through.

MSRP: \$275

Website: Elliscanvastents.com Model: Calvary bedroll Weight: 15 pounds Dimensions: 84x34x9 inches

Options: Available in zippered, lace-up and wide-

body configurations

LOCATION

Desert survival instructor Tony Nester has broken down camp location based on the following Ws. His suggestions are conceptual and apply to all campgrounds. Always consider them before you throw down your bedroll for the night.

WATER: How far are you from this resource? Will you contaminate the water source? Can you hear the water, and how will the white noise affect your awareness?

WIGGLIES: Fire ants, chiggers, spiders and ground bee hives can ruin your night. Before you drop your shelter on the ground, look for what can crawl into your bedroll with you.

WOOD: If you intend to make a campfire to sit next to before retiring, determine if the area has a good firewood supply.

WEATHER: If foul weather rolls in, is your shelter protected by natural features? Are you in a location that is protected from rain, high winds, lightning, etc.?

WIDOWMAKERS:

You've looked down. now look up. Survey your surroundings for widowmakers-trees or branches that could fall on you-directly above and as far as the tallest dead tree in your surrounding area. If the tallest dead branch or standing tree falls, will it reach vour camp?





(top) The swag comes equipped with aluminum poles and a doormat.

(center) The Kodiak canvas swag can be set up in various ways for given conditions. The zippered section can be left open, covered with mosquito-proof mesh, or be completely enclosed with canvas.

(below) The Kodiak canvas swag is rolled tightly for transport or storage.



KODIAK CANVAS SWAG ONE-PERSON CANVAS TENT

The Kodiak canvas swag takes the idea of the all-inclusive bedroll to the next level. Overlanders in Australia have used similarly designed swags for their slumber needs for years, and this portable shelter will certainly become popular in the U.S. market. The swag can be thrown into the back of a pickup, on a roof rack or strapped to the rear of an ATV with all of the components necessary for a good night's sleep rolled into one bundle. The swag retains the shelter and pad (with room for a sleeping bag) like the standard bedroll but includes aluminum frame poles and even a floor mat for dirty boots. Arguably, the Kodiak swag's finest feature is a full 2-inchthick, open-cell polyurethane foam pad that makes slight bumps and irregularities on the ground disappear while comforting the back and providing a cushion unrivaled by ultralight options.

At 6 feet 8 inches long and nearly 3 feet wide, it's spacious enough for big-boned bushcrafters. The aluminum poles provide clearance to move around inside the swag and sleep in any position. There's just enough room to bring in extra clothing and some gear, too.

The swag can be set up in a number of ways

based on needs or preferences. If time or energy allows, it can be used in conjunction with a traditional camp cot. Elevated sleeping will increase the swag's seasonal use to earlier in the spring or later in the fall. Should the user be too tired to deploy a cot, the 16-ounce vinyl bottom can be used directly on the ground, even in the mud, without moisture seeping up through the treated canvas.

Many venting options are made possible with what seem like endless zippers, openings and enough mosquito mesh to deter a swarm. From cool nights with the canvas cover zipped over to warm nights with only the mesh separating you from the stars, the swag is a slick design that deploys quickly, allowing the user more time to cook dinner, cut firewood or tend to camp chores.

MSRP: \$299.99

Website: Kodiakcanvas.com

Model: 8101 Weight: 17.5 pounds

Dimensions: 80x35x27 inches; packed size 35x12 inches **Includes:** Doormat, cinch straps, stakes, guy lines and

carry bag

THE LUCKY SHEEP WOOL SLEEPING BAG

Wool blankets are a staple sleeping component in the bushcraft community. From Army surplus to modern production, wool blankets retain warmth when wet and are fire resistant and durable compared to synthetic fibers. Unfortunately, the tradeoff has always been weight, and for cold-weather comfort, multiple blankets must be used. For a dedicated camp setup, they work fine, but a brand-new sleeping bag from Lucky Sheep has recently revisited the idea of wool as insulation with a unique wool sleeping bag. It's lauded as the "world's first lightweight natural-fiber sleeping bag," and it's the next step in the evolution of camp comfort.

Traditional bedrolls are meant for added comfort in camp and the Lucky Sheep wool sleeping bag is an ideal insulation option to pair with a canvas cover. Made from all-natural materials, the sleeping bag's interior lining is made from non-itchy, moisture-wicking Merino wool. The batting is 100% Eco Wool with generous loft and excellent draping characteristics, and the bag's exterior is a lightweight canvas that resists water on damp mornings. Unlike a synthetic bag that can be clammy and confined, the Lucky Sheep bag offers deep sleep and unrestricted movement.

The Lucky Sheep sleeping bag features a hoodless and zipperless design. It's meant to be draped over the body, and a couple of draft collars tuck under the body, where traditional batting is compressed flat and rendered ineffective. The open section, therefore, is placed underneath the body. This design's concept is to let the user feel free while





sleeping. A zipper at the foot can be unzipped to lay the bag flat like a quilt. Think of it as a wool comforter with a footbox. The Lucky Sheep sleeping bag comes with two stuff sacks: one is for use outdoors, and the other is meant for home storage. Of course, no stuff sack is necessary when used with one of the two modern bedrolls mentioned in this article.

MSRP: \$500

Website: Woolsleepingbag.com

Weight: 4.5 pounds Lining: Merino wool Other: Rated to 20-30°F

Final Thoughts

People often say, "I can't wait until I get home and crawl into my own bed." The modern bedroll offers users the same customized night's sleep as their bed back home. While not a perfect substitute, it's worlds away from the synthetic, cramped and marginal sleeping bags we often use. We travel to the woods to rough it, but when our hiking, hunting or fishing performance depends on a good night's sleep, the modern bedroll delivers. MP

(top) This is the full length of the Lucky Sheep wool sleeping bag.

(below) Not only is the Lucky Sheep sleeping bag warm and comfortable, it's also made in the U.S.A.

· SELF-RELIANCE·

How to Build a Three-Post Fence Corner

THE INS AND OUTS OF AN ANCIENT SKILL

By Clay Newcomb

obert Frost said, "Good fences make good neighbors." But, the quote can be taken another direction by saying, "Good fences indicate good farmers." Raising and securing livestock has been a critical component to rural life since man quit making a living solely by hunting and gathering.

Fences became part of human culture when people began claiming sections of land as home. Fences coincided with the first concepts of private property and land stewardship. When you build a fence, you're touching something ancient. Fences have played a powerful role in the development of human society by providing livestock year-round security and giving humans easy access to the resources the animals provide.

Regardless of the type of stock you want to fence in, you're a greenhorn until you've built one yourself. If you haven't, I'll help you understand the basics of building corner posts for stretching barbed wire.















Understanding the Three-Post Corner

A three-post corner can capably accommodate any angle necessary to create a turn in a fence. A corner could be any angle inside of 180 degrees necessary to enclose livestock within a given section of land. It doesn't have to be 90 degrees, but often is. A barbed-wire fence stays tight because the wire is stretched in straight sections. Corner posts connect the straight sections. They're built to withstand the high tensions needed to keep the wire tight.

A corner post is simply a strong anchor point. However, a single post in the ground, even if set in concrete, will move over time. This is why farmers use a three-post corner. Secondly, wood posts set in concrete rot quicker than wood set in soil. Concrete holds water against the post much of the time, while soil drains water.

A corner post is usually between 6 and 8 inches in diameter. Popular wood-post materials are treated wood, old telephone poles, eastern red cedar, Bois D'Arc or Osage

orange and locust, all of which resist rot and provide long-term stability, some up to 50 years.

Building a Three-Post Corner

Begin by determining where you want your primary corner post located. In geometry, this would be the angle's vertex. In essence, you'll be building a triangle with three posts. It's important that you dig the postholes with a posthole digger or with an auger on a tractor. Maintaining undisturbed ground around the post is critical for long-term stability.

I once dug fence posts using a small backhoe and made the holes much larger than necessary. When I stretched the wire, the fence posts leaned because the soil around them had been disturbed. Leaning corner posts create loose wire. Loose wire means an insecure, lousy-looking fence. Undisturbed soil is extremely stable and will keep the posts straight. Digging a hole only slightly larger than the post is important.

Digging with posthole diggers can be easy or

(top, left) It might be difficult or it might be easy, but you'll need to dig 3 feet deep to secure your posts. Keep a rock bar handy. (top, right) Getting the posts plumb with a 4-foot level is critical. (bottom, left) A 12-inch spike is used to connect the cross post to the main posts. (bottom, right) Leveling the cross posts is important.



(top) Using a chainsaw, notch the posts so the cross posts sit level. (right) The cross posts give strength to the three-post corner.









difficult, depending upon the type of soil. Rocky soil makes for tough digging and may require a rock bar for breaking and prying up rocks. Secondly, a sharp-shooter shovel is also handy for cutting roots. The holes will need to be 3 feet deep, but I've seen 2-foot holes work in the right soil. Rocky soil is more stable, and a shallower hole might be acceptable.

In sandy or loamy areas—easy digging with no rocks—a 3-foot-deep hole is necessary to stabilize the posts. I've found that it's difficult to dig a 3-foot-deep hole without enlarging the circumference to accommodate the spread of the posthole digger's handles. However, you can dig a 2-foot-deep hole with a circumference as wide as the posthole digger.

Once the hole is dug, it's time to set the post. Use a 4-foot level to get the post plumb before you begin filling in the hole. It's very important that you compact the loose dirt and rocks multiple times as you fill in the hole. You can use a shovel handle or your rock bar's flat end to compress the soil tightly around the post.

The second part of the three-post corner will be placing the other two posts to complete the angle. We'll call these the "secondary

(top, left) A locust sapling was cut to make a twist handle for the brace wire. Also notice the aluminum crimps used to connect the brace wire. (top, right) Use a 12- to 14-inch-long stick to twist the wire tight. (bottom, right) A wire stretcher easily tightens barbed wire.

Stretching Barbed Wire

Tight wire equals security for the livestock inside the fence. Tight wire makes for rigid barbs, keeping livestock from pressing against the fence. Loose wire gives animals the impression they can press through it, and often they're big enough to do just that. A good fence is both a psychological and physiological livestock barrier.

There are multiple methods for stretching barbed wire all designed for tight results. You won't be able to tighten it effectively by hand, so you'll need to use the laws of physics to help. Barbed wire is difficult to handle, and you'll need a method of mechanized energy to stretch it.

A modern wire stretcher is by far the easiest and best method I've seen. Wire stretchers can be purchased from almost any farm store for less than \$50. They're handy for building fences, but are also used for repairing them. A broken barbed wire strand can also be reconnected easily and tightly using a wire stretcher.

How do they work? When stretching wire to a fence post, simply hook the end of the wire stretcher to the back of the post where you want the wire to remain. With the stretcher extended to its widest position, connect the clamp to the wire and begin cranking the lever. It'll pull the wire back towards the post. Then, you can easily wrap the wire twice around the post (with the loose end) and twist the wire multiple times around itself to secure, and release the wire stretcher. Get the wire so tight that a horsehair fiddle bow could play a tune on it.

Setting Tee Posts

Metal tee posts are the easiest and most costeffective method for making a barbed-wire fence. A fairly standard distance between tee posts is 10 feet.
However, you can go up to 12 feet by using spiral fence stays between the posts.
Fence stays are vertical wires that keep the wire from spreading apart in the middle of the span.

You can use a heavy sledgehammer to pound in tee posts, but you're better off using a modern tee-post driver, which is basically a metal pipe with handles that's capped on one side. Pound the post into the ground by slipping the pipe over the tee post and exerting downward force. Gravity does most of the work, and it's fairly easy to use, even in rocky soil. If you encounter large rocks, you'll have to dig them out or move the post slightly. The tee post will break smaller rocks.

Getting the tee posts vertically plumb is important. This is typically done by eye, but a level may be used. Once the posts are in the ground, you can bend them slightly if they're not plumb. Next, you'll want to get them deep enough to be secure. I typically use a 6-foot fence post and pound it into the ground about 12-14 inches. Just make sure the fin is completely in the ground by a few inches.

Most importantly, run a tight string between the corner posts to assist in aligning the tee post. A straight fence looks really nice and can't be done by eye. Make sure your string is tight and that the top of each post touches it.





posts," and they can be the same size as the corner post or slightly smaller. I like to place them between 5 and 6 feet away from the corner post.

Once the secondary posts are set, you'll need to connect them to the corner post with a small-diameter cross post about 4 feet above ground level. I like to notch the vertical posts and set the cross post in the notches. Then, I use a 10- to 12-inch spike (bought at any hardware store) to hammer through the post into the center of the cross post. Now the primary, secondary and cross posts are set.

Stabilizing and Strengthening

Brace wire strengthens the three-post corner. Essentially, you're connecting the most stable part of one post (the bottom) to the weakest part of another post (the top). This strengthens the top of the post, allowing you to stretch the top strands of barbed wire as tightly as the bottom without pulling the post over. Brace wire can be purchased from most farm stores and is a high-tensile smooth wire between 9 and 12 gauge. You can also just use barbed wire. You'll need about 60 to 70 feet of wire per three-post corner.

Next, hammer some horseshoe nails at the top and bottom of every post. You'll run the brace wire through these nails to keep it from slipping down the post. If you're using smooth wire, you'll also need to connect the wire using the appropriate size aluminum crimps. If you're using barbed wire, simply connect the ends together by intertwining two loops together with multiple twists.

Loop a piece of wire approximately 15 feet long around the bottom of one post through the horseshoe nail. Then, loop it through the horseshoe nail at the top of another post and connect the ends of the brace wire. Keep the wire as tight as possible. You'll now have what appears to be two wires running parallel between posts. Run a stout 12- to 14-inch stick between the two wires and twist it to make the wire taut. High-tensile smooth wire maintains its twist naturally without a problem, but barbed wire doesn't. Use a stick long enough that its ends rest against the cross post to prevent unwinding.

Follow the same procedure on the opposite top and bottom of the posts to complete the brace-wire section of one side of your three-post corner. Then, do the other side the same way. In total, each three-post corner will have four separate brace wires.

A well-braced corner post is essential for a tight, long-lasting wire fence. This isn't the only way to build a corner, but it works. It will keep your livestock secure and your neighbors happy, and it will help define your humanity. After all, we're the only creature on the planet that builds fences. MP

-HUNTING/SHOOTING-

Blood-Trailing 101

HOW TO RECOVER MARGINALLY ARROWED DEER

By Randy Templeton

ost hunters have blood-trailed a deer or other big-game animal. Those who haven't either have poor luck or haven't been hunting very long. Tracking a double-lunged or heart-shot deer is often simple, but marginal hits always make tracking difficult. Regardless of how long you've been hunting or how many perfect shots you've made, you'll eventually face a challenging blood trail.

I've been involved with tracking dozens of deer. Some jobs were short and sweet. Others were long and tedious. None of them were exactly the same, but I'm happy to say the majority ended with wide grins and high fives. I'll share a few tips and tactics that have guided my friends and me to successfully recover our deer.

First Few Seconds

The first few seconds after the shot play a key role in determining when to take up the trail. As the deer departs, watch for the impact wound and the angle at which the arrow entered the animal.

Things look much different from an elevated stand than from ground level, so before climbing down, memorize the exact location where the deer was standing and where it was last seen running or walking. Use landmarks like a unique log, tree, bush, rock or brush pile to mark the spots.







Go to the spot where the deer was standing and look for your arrow.
Assuming you find the arrow, your initial assessment of the blood and color will help determine or confirm where the deer was hit.

Blood from a
double-lung shot
will appear bright
red and contain
small air bubbles.
However, in the
absence of air
bubbles, don't
assume you missed
both lungs. Air
bubbles aren't
always obvious,
especially with
single-lung hits or
high entry wounds.

If major arteries aren't cut, the blood from deep muscle shots like the ham, back or shoulder will also appear bright red.

Examine the arrow for other clues such as greasy fat or tallow. Green or brown matter smeared on the arrow and fletching are sure signs of a gut shot. Dark burgundycolored blood generally indicates a liver hit. However, blood from a gut shot will sometimes appear dark when stomach matter discolors the blood.



Wade Jager shot this nice buck last November, but it wasn't recovered until several hours later and required a followup shot. A post-recovery autopsy revealed that the first shot clipped the liver and one lung.

"The first few seconds after the shot play a key role in determining when to take up the trail."

Waiting Game

Your first instinct might be to climb down and look for the arrow and first blood, but you're probably not thinking clearly. Often this leads to going too far too soon and bumping the wounded deer.

For example, let's say you climb down to look for blood and find none. Panic sets in, and you look a little further. Suddenly, the deer jumps up and flees to areas unknown. In the end, it could result in a lengthier recovery or no recovery at all.

Regardless of where you think the deer was hit, wait at least 30 minutes before climbing down. In cases where you suspect the deer was hit too far back—liver, paunch or one lung—sit quietly for at least an hour, then back out and give the animal more time to expire (see sidebar, "Shot Assessment and Timetable," pg. 20).

Taking up the Trail

Unless you suspect a poor hit, avoid calling in the troops just yet. Your buddies might want to take part in the excitement, but too many

people can hinder the search and recovery when crucial sign is walked on or overlooked. For that reason, I limit trackers to myself and one other person.

Keep a cool head and take it slow. First blood is generally found within the first 10 to 20 yards, but it could be farther if there isn't an exit wound. This is especially true for high hits because the chest cavity fills to a certain level before blood starts spewing out the entrance hole.

As you begin tracking, flag the blood trail frequently with bright surveyor's tape or reflective markers. If the blood trail peters out, the markers will help relocate the last sign should you need to backtrack and start over. The markers will also help you confirm the direction the deer is traveling.

Stop frequently and look ahead as if you were spot-and-stalking the deer. In the event the deer is still alive, be ready to make a finishing shot. If you have someone helping, one should be looking for blood, while the other looks ahead for the deer.



When an arrowed deer departs, watch and listen for as long as you can. Look for blood on the deer's side that would identify where the arrow impacted. Memorize where the deer was standing and a landmark where it was last seen.



If you're not positive your arrowed deer is dead, be sneaky as you follow the blood trail. The animal will likely bed down, and if you're careful, you might be able to spot it so you can decide whether to back out or move in for a finishing shot. That's how bowhunter Wade Jager recovered this buck.

| SHOT ASSESSMENT AND TIMETABLE | | | |
|--|--|-------------------------|-------------------------------------|
| Blood Description and Quantity | Description of Trail | Most Likely Source | Minimum Time Before Follow Up |
| Bright red to reddish brown, light to sparse bleeding | Blood on the arrow will be mixed with green or brown stomach matter and will smell foul or sour. Depending on the exit wound, there may be greasy fat or tallow on the arrow. The trail is often sparse. | Paunch | 8-10 hours |
| Bright red, heavy bleeding | Blood on the arrow shaft and ground will contain air bubbles. Blood will be found on knee-high brush and the ground in squirts and sprays. | Lungs | 30 minutes |
| Bright red, heavy bleeding | Blood will appear in squirts and sprays on the ground and brush. | Heart | 30 minutes |
| Dark burgundy, strong blood trail at first that slows | Blood trail may be strong at first but slows, because most bleeding is internal. Blood is found higher than normal on brush and small trees. | Liver | 4-5 hours |
| Bright red, profuse bleeding | Heavy bleeding from start to finish | Femoral Artery | 30 minutes |
| Bright red, profuse bleeding | Heavy blood trail, often found on waist-high grass and trees. | Aorta, Jugular | 30 minutes |
| Dark red, varies from small to large drops or blotches | Blood comes from one side of the deer, starts heavy and slows if the wound clots off. Continue pushing the deer to keep the wound open. | Shoulder, Rump | Immediately |
| Dark red, varies from light to sparse | Normally considered a superficial wound. Blood will be high on brush and small trees. Continue pushing the deer to keep the wound open. | Back or Heavy Muscle | Immediately |
| Note: The suggested waiting periods assume the deer didn't go down within sight. | | | |

Path of Least Resistance

Most fatally wounded deer exert as little energy as possible, and usually follow the path of least resistance, which often leads to a place where the deer feels most secure, like a bedding area. As you follow the blood trail, try to anticipate the deer's travel route based on the terrain. This is easier if you've been flagging the trail as you go.

Waterways

Wounded deer often travel toward a water source. This is especially true for gut- and livershot deer as they become thirsty or dehydrated. I've found tons of dead deer near ponds and creeks. If you lose the blood trail, always search around nearby water sources.

One Lung

There are two schools of thought on singlelung hits. One asserts that a deer will expire, but it just takes longer to happen. The other suggests that a deer can and will survive with just one lung. I've probably helped track a couple dozen single-lung-shot deer, and

"I firmly believe shoulder-shot deer warrant immediate follow up to keep the wound open."

approximately 90% were recovered.

If you suspect a single-lung hit, give the deer four to five hours before tracking. If you bump the deer in the process, back off and wait another two or three hours.

Liver

Although some may disagree, past experience proves that a liver-shot deer can live four or five hours, sometimes longer. Not long ago, I shot a buck too far back and suspected a liver shot. I left the area quietly and came back four hours later. I found the buck bedded in a standing cornfield, very much alive. A follow-up shot finished the deer.

Paunch Shot

The adage, in doubt, back out, always applies to paunch (gut) shots. A gut-shot deer will undoubtedly die; it's simply a matter of when. Once the stomach matter releases internally, the deer will eventually die of sepsis.

Your best chances of recovery are to back out of the area entirely and take up the trail eight to 10 hours later. Some claim recovery odds are slim, but I disagree, if the deer isn't pushed.

As a rule of thumb, if a deer is shot early in the morning, wait until late afternoon to begin trailing. If it was shot late in the afternoon, leave the deer overnight and return the following morning an hour or two after sunrise. If you bump the deer, retreat immediately and give it a couple more hours.

Shoulder Shots

When I find bright red blood without bubbles, I think of shoulder and rump shots. Shoulder-shot deer may have one of the lowest recovery rates, but they also have one of the highest survival rates. One of the first things we learn in a first-aid course is to apply pressure to a cut to stop bleeding. Shoulder-shot deer generally run some distance before they slow down or stop. If left undisturbed, they will lie down on the wound side, which applies pressure and helps begin the clotting process.



If you question whether a deer is gut shot, look for green or brown matter smeared on the arrow shaft and fletching. If you're still unsure, smell the arrow; it will usually smell sour. Allow gut-shot deer eight to 10 hours to expire before taking up the trail.



"When all avenues are exhausted, call in the troops. Assemble three or four people and form a line, spacing each tracker 5 yards apart."

(above) Craig Owens shot this dandy 150-class buck last November. Owens and the author pushed the deer to keep the wound open. They caught up with the deer four hours later, and Owens finished the job.

(opposite) Assessing your hit helps you decide when to begin tracking.

I firmly believe shoulder-shot deer warrant immediate follow up to keep the wound open. If your broadhead is still in the deer, pushing the deer can cause the broadhead to auger around and inflict further damage. In cases where the arrow falls out, there's still a chance of recovering the deer, which happened to be the case for my buddy, Craig, last year.

To shorten a long story, the broadhead didn't penetrate the thick shoulder blade, and the arrow fell out. First blood was found nearly 200 yards away. After tracking the deer for four hours and nearly a mile, we spotted the buck beneath a cedar tree, very much alive. Before Craig could nock an arrow, the buck jumped up and split the scene. An hour later, we caught up with the buck again, and it took another arrow to finish him off. Had we not pushed the deer, it probably had a 50/50 chance of surviving.

Grid Search

When the blood trail is lost altogether, start where the last blood was found and determine the deer's line of travel. Next, look ahead 10 yards and break the terrain into two grids, both 10 yards by 10 yards to the left and right of where last blood was found. Search one grid thoroughly, even if it means getting down on your hands and knees. If you don't find sign, scour the second grid. If you don't pick up the trail, grid out the next 10 yards and repeat.

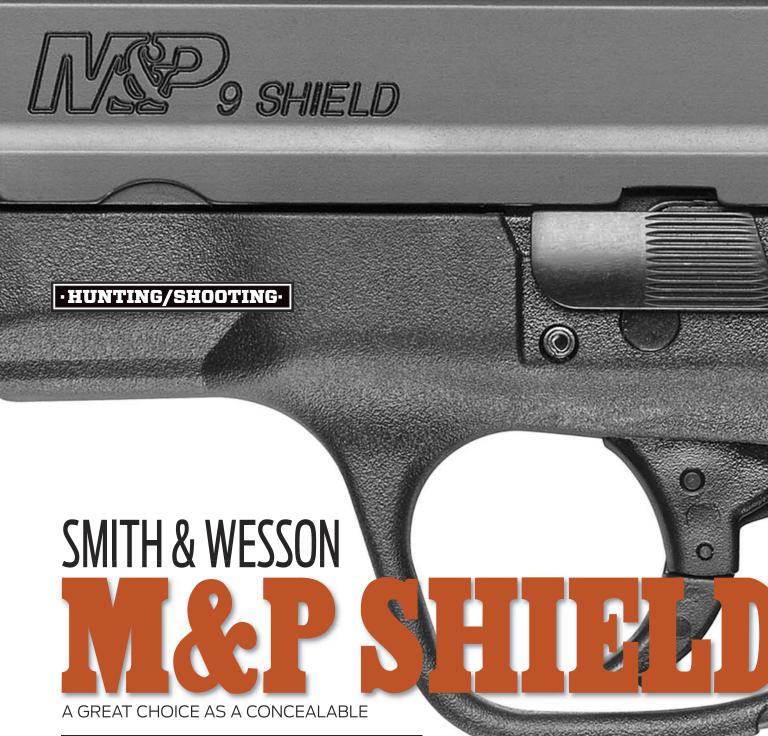
Body Search

When all avenues are exhausted, call in the troops. Assemble three or four people and form a line, spacing each tracker 5 yards apart. Sweep through the timber from one end to the other. Continue doing this until you've covered every square inch. Don't overlook small woodlots, satellite timber, tall CRP grass or crop fields around the periphery.

Conclusions

Before you start tracking a marginally hit deer, give yourself time to calm down. Move slowly to avoid overlooking small clues. Be persistent and don't quit searching until you've exhausted all options and resources to recover your trophy.



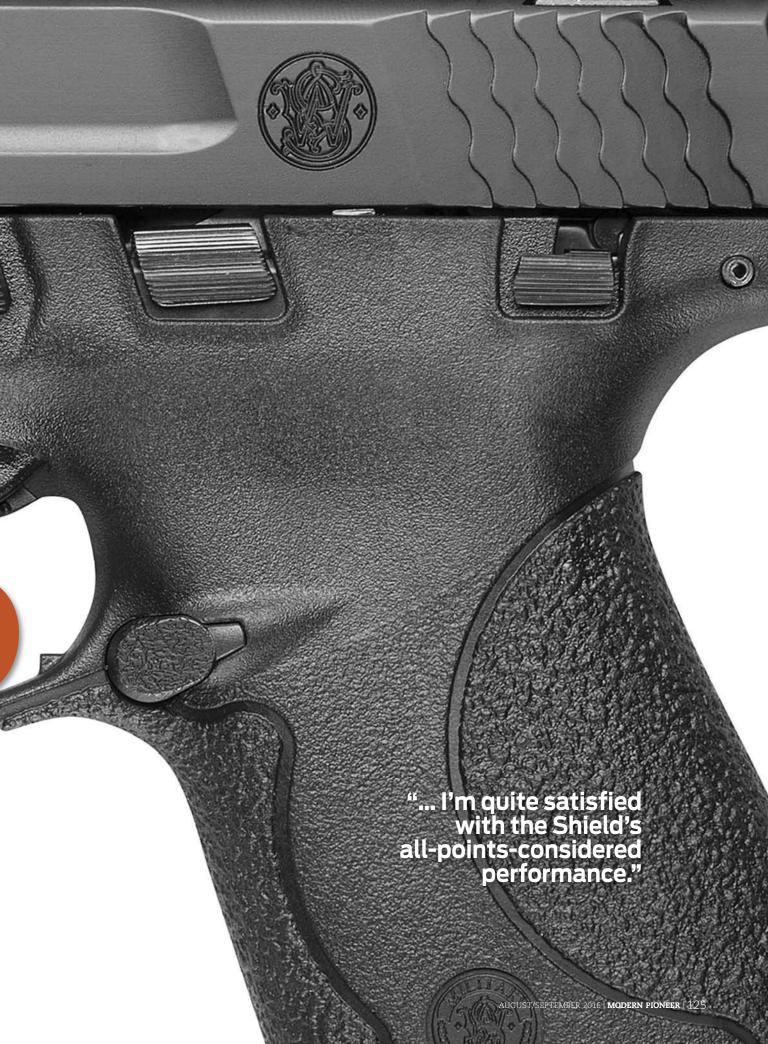


By Thomas C. Tabor

oday, more people than ever before want to be armed. Maybe it's the result of all of the violence displayed on the evening news, or perhaps it's a drive to have more protection when exploring nature.

Regardless of motives, the increase in interest—coupled with the fear of

government overreach—has instigated tremendous growth within the firearms industry. With that escalation has come a plethora of new handgun choices. From a consumer's standpoint, more choices are usually celebrated, but so many choices can be confusing for anyone attempting to match a handgun to a particular application.





The compact-sized S&W Shield 9mm is a very reliable choice for selfdefense purposes.

Most shooters obviously want accuracy in a gun that's reliable, lightweight, concealable and comfortably carried. It also must be powerful enough to do the job when disaster strikes.

I own many handguns (probably more than my wife feels is necessary), but like most people, I wanted to find a gun that possessed more of the attributes I just mentioned. It took me a while, but I believe I found it in Smith & Wesson's (S&W) M&P Shield. I'm clearly not alone in reaching that decision, because at the close of last year, the company announced it had shipped 1,000,000 Shields.

First Look

My first contact with the M&P Shield came at a gun-writers' training event last August. At the time, I was looking for a handgun that could be concealed easily. The Shield seemed to perfectly fit those needs, and I was soon testing and evaluating it on my own firing range. The end result was that the Shield has become my almost constant companion.

Available Choices and Optics

Currently, there are 16 sub-models from which to choose within S&W's M&P Shield

line. Some come with a factory-installed Crimson Trace green laser; there are ported models; some are built without a thumb safety; some come equipped with tritium night sights; others have been built compliant with the special requirements of states like California and Massachusetts. Each sub-model is available in 9mm or .40 S&W.

I selected a basic no-frills model chambered in 9mm. For more than a century, the 9mm has proven itself an effective and powerful cartridge, and as such, it's become a standard by many of the world's military, police and citizens.

Ammunition in 9mm is more readily available than .40 S&W. Further, 9mm cartridges are usually cheaper to purchase, and the bullet selection is considerably broader. For these reasons, a 9mm handgun simply made good sense for me.

Packing the Shield

A couple of Shield characteristics I find particularly appealing are its light weight and trim lines. Built on a polymer frame, the Shield weighs only 19 ounces, and it's one of the narrowest centerfire handguns on today's



SHIELD SPECIFICATIONS

MANUFACTURER: Smith & Wesson

Model: M&P Shield Caliber: 9mm

Sights: White-dot front sight and double white-dot rear sight

Action: Semi-auto Weight: 19 ounces Barrel: 3.1 inches

Overall Length: 6.1 inches
Overall Height: 4.6 inches
Frame Width: .95 inches
Frame Material: Polymer
Barrel/Slide Finish: Black 68 HRe
Magazine: Seven- and eight-round
magazines are included (.40 S&W
models come with six- and seven-

round magazines) **MSRP:** \$449-\$589

market. Measuring less than 1 inch across its frame, it's favorably sized for carrying either inside or outside the waist of your pants.

appealing are its light weight and trim lines."

The market offers many fine holsters, but I typically carry the Shield in either a Blackhawk A.R.C. (Appendix Reversible Carry) holster, or in a leather model Galco Combat Master belt holster. Both are comfortable to wear and will provide many years of service. Both holsters secure the Shield firmly in place.

Testing the S&W Shield

I suppose most would consider me a bit fanatical when it comes to firearm triggers. When reviewing a firearm—shotgun, rifle or handgun—my first area of focus always centers on the trigger.

In this case, S&W indicates the trigger-pull weight is 6.5 pounds. Checking those claims using my own Lyman electronic digital trigger pull gauge, the five-pull average came in only 3 ounces heavier than that figure at 6 pounds 11 ounces. However, I find the pull is a little rougher in its movements than ideal, but I've grown accustomed to that characteristic. Most production-built semi-automatic handgun triggers pull similarly.





minimize mass weight. Even though steel undeniably resists wear better than polymer, I'm confident most shooters can expect a lifetime of use from the Shield without problems. As long as you clean and service it properly and regularly, I don't foresee any problems associated with excessive wear.

Each Shield comes with two cartridge magazines. The standard 9mm magazine has a seven-round capacity, and when installed, the bottom of the magazine is essentially flush with the grip's base. As is often the case with small-framed handguns, I found the grip to be fairly small, even for my average-sized hands. When shooting, I normally like my little finger to extend below the grip, which helps to control muzzle jump and stabilize the gun. With the seven-round magazine in place, I found this type of hold to be natural and convenient. The larger, eight-round magazine extends the grip by about ½ inch, which makes it a little more comfortable to hold.

Keeping in mind my own fanaticism about firearm triggers, I found the Shield's trigger to be adequate, though a bit rough in its movements. I may take my Shield to my gunsmith for a trigger job, just like I've done with many of my other firearms. All factors considered, though, it's an excellent concealed-carry handgun that performs to expectations.

Concealed Carry and Permits

The laws governing concealed-weapon carry vary by state. If you intend to carry any firearm in a concealed manner, it's imperative that you thoroughly read and understand the laws where you intend to do so. Some states view exposed carry (on your hip or otherwise in plain sight) permissible without a formal permit, but in these cases, there are likely restrictions on where you're permitted to do so. That rule certainly doesn't apply to all locales.

In most jurisdictions, carrying a concealed handgun requires a CCW (Concealed Carry Weapon) permit. Those permits are generally issued by local law-enforcement agencies and often require a thorough background check. Some states have reciprocity agreements where permits from other jurisdictions are honored, but that isn't the case everywhere. In order to comply with the law, you must know precisely what is and what is not allowed wherever you want to carry a weapon.



Cookstoves Clean, Easy, and Efficient



Robert Haslam (1840-1912) The account of "Pony Bob"

> By Darryl Quidort

or 18 months, from April 1860 to Oct. 1861, daring young riders carried mail across the American West as part of the Pony Express. There are many exciting stories about Pony Express riders and the dangers and hardships they faced with each ride.

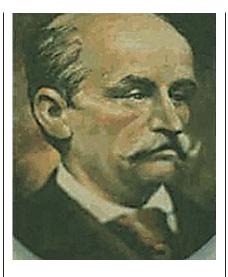
By changing horses at relay stations every 20 to 35 miles, each rider carried the mail pouches for 75 to 100 miles total. It took about 10 days to carry a letter via horseback 1,966 miles from St. Joseph, Missouri, to Sacramento, California. However, the fastest ride was done in only seven days and 17 hours. Riders were carrying important news on that trip: President Lincoln's Inaugural Address. Robert "Pony Bob" Haslam rode the trip's final leg with a flint-tipped Indian arrow in his leg.

Born in Jan. 1840 in London, England, Pony Bob immigrated to America as a 16-year-old. He found work on a Utah ranch where he became a loyal worker and skilled horseman. Bolivar Roberts, the Pony Express division superintendent at Carson City, Nevada, hired the tough, 125-pound, 20-year-old. Pony Bob became the type of rider that made the Pony Express part of the American West's romantic legend.

Pony Bob's regular run was across the sand and alkali deserts of Nevada Territory. After the 1860 presidential election, he rode 13 different horses for 120 miles to deliver Lincoln's Inaugural Address. Part of the ride was through hostile Paiute Indian country where he recorded in his journal a "running fight ... for 3 or 4 miles." He reportedly escaped by shooting the natives' horses out from under them. Although wounded by a Paiute arrow, he finished his ride in eight hours and 20 minutes. As he neared the gates to his destination, Pony Bob shouted to the sentries, "Lincoln's elected!" It was historic news when the nation was facing the divisive issue of slavery and a possible civil war.

The U.S. Department of the Interior reports that, "By all accounts, the stories about Pony Bob seem to be true ... most historians agree that Pony Bob was the rider on the longest ride during the short but colorful history of the Pony Express."

Pony Bob's long ride began when he received the eastbound mail at Friday's



Station. The first 60 miles went smoothly, but when he reached Reed's Station on the Carson River, fresh horses weren't available. The settlers had taken the horses for use in the campaign against the Paiute hostilities. Pony Bob fed his tired horse and pushed on for another 15 miles to Buckland's Station, the end of his normal run.

Pony Bob's relief rider was there, but he so badly feared an Indian attack that he refused to take the mail. Superintendent W. C. Marley couldn't persuade the regular rider to go. In desperation he said, "Bob, I'll give you \$50 if you make this ride." Pony Bob later told author William Visscher, "Within 10 minutes, when I had adjusted my Spencer rifle, which was a seven-shooter, and my Colt's revolver, with two cylinders ready for use in case of emergency, I started."

It was 35 miles to the Sink of the Carson over desolate desert terrain. Pony Bob got a fresh horse there but had to make the next 30 miles to Sand Springs without any water. From there to Cold Springs was a 37-mile ride, then, with another fresh horse, it was on to Smith's Creek Station where he finally turned the mail pouches over to express rider J. G. Kelley. Pony Bob had ridden 190 miles, stopping only long enough to change horses, eat some food and drink some water. His ride was half over.

Pony Bob rested at Smith's Creek for nine hours before starting his return trip carrying the westbound mail. He found the Cold

Springs Station burned to the ground. Charred bodies lay among the still-smoking ruins where men had died fighting. The Paiutes had stolen all of the stock.

A fast horse was a Pony Express rider's best defense, but his horse was already worn. Resting his rifle over the pommel of his saddle, Pony Bob pushed his tired horse toward Sand Springs, 30 miles away. Night closed in quickly. Pony Bob carefully watched his horse's ears, knowing they'd give him a danger signal if Indians were near. The trail led through dangerous brushy areas, but he reached Sand Springs safely. He told the station agent there about the Cold Springs raid and advised immediate departure. With fresh horses, the two rode hard for Sink of the Carson. The Sand Springs Station was attacked that day. Pony Bob rested at Sink of the Carson for an hour before he proceeded. He arrived back at Friday's Station without further incident, less than four hours behind schedule. The 380-mile round trip was the Pony Express' longest recorded ride.

In Oct. 1861, the first overland telegraph line was completed, and the Pony Express ended. Though it was recorded in history as a success, it failed financially. The \$100-a-month rider salaries and other expenses caused investors to lose money.

When the Pony Express ended, Pony Bob kept riding. As an express rider for the Wells Fargo Company, he traveled a route from Lake Tahoe to Virginia City, Nevada. When the telegraph reached Virginia City, Pony Bob was sent to Idaho to ride an express route there. He also scouted for the U.S. Army and eventually became Deputy U.S. Marshall in Salt Lake City, Utah. Pony Bob Haslam died in Chicago on Feb. 29, 1912, at age 72.

Unlike other famous Pony Express riders, like William "Buffalo Bill" Cody and James "Wild Bill" Hickok, Pony Bob never sought attention for his deeds. All he did was ride.

Sources

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Pioneers Discovering Affordable Solar Generator - Produces 1500 Watts of AC Power for FREE!

Breakthrough new device provides power during outages or when you're on the go.

NASHVILLE, TN – Frank Bates was living in a small northeast town when his electricity went out for the fourth time that winter. The result of a powerful nor'easter that knocked down trees and power lines, the blackout lasted for nine bonechilling days.

In the middle of a vicious winter, his family had to endure life with no refrigeration for perishables, no electric stove for cooking, no televisions, no cellular telephones, no computers – and with no power for the pump, no water for drinking, washing or flushing. But the absolute worst of it was they had no heat.

"That did it for me," said Bates, "We were totally dependent on a giant utility company. And too often their power went out, even in nice weather. But they still had the gall to constantly demand rate increases. Their bills were killing us and their service plain stank.

"Depending on that company for uninterrupted power was a fool's game. Of course, the entire electrical system all across the country is so decrepit that I guess we should be happy it doesn't go down more often than it does. Anyway, I decided I had to find a way to reduce my complete dependence on greedy utility companies."

Bates's first step was to move to a warmer state where his energy needs would be reduced. Then, he set out on a mission to learn everything he could about the alternatives available to frustrated consumers who want to slash their ties with the mega-utilities.

"First off, I knew I needed my own generator. But it had to be something I could easily move and take with me if we had to leave home quickly. But all the so-called portable generators on the market weighed a lot more than I can lift. Plus, many used something like 15 gallons of gas each day just to keep running. And that's assuming gas will be available, and it may not be. What's more, those things are all incredibly noisy, they smell awful, and their exhaust can literally kill you."

Bates quickly realized that a gas generator was not the answer he was looking for. Instead, he concluded the time had come for a lightweight portable generator that was not only powerful, but also 100% fueled by the sun. He had uncovered research that showed the technology for such a generator already existed. It had been proven again and again. However, it also showed he would have to get it designed and built from scratch.

By a stroke of luck, a friend introduced Bates to a rogue engineering genius in Utah. "Just like me, he was sick of being held hostage by the electric company," Bates explained. "And for over 20 years, he'd been working to perfect the use of solar energy around the world. He jumped at the opportunity to join forces with me to do something that hadn't been done before. It was really very exciting. After all, we would be designing a completely new generator."

Bates specified that it had to be very affordable and it had to be portable. Also, he wanted it to operate as quietly as



PATRIOT POWER GENERATOR 1500

possible. And most importantly, it could not use even a single drop of gasoline. It took many months before the design of this breakthrough generator was complete. And months more before full production could begin.

Bates says it was worth the wait. Thrilled with the performance of his new solar-powered generator, he named it the Patriot Power Generator 1500. Bates had accomplished everything he'd set out to do. "Finally," he said with a grin, "I was able to thumb my nose at the massive utilities that were just about bleeding me dry. I immediately started saving real money. And, for the first time ever, I was confident that my family would have reliable electric power whenever they needed it."

This remarkable generator is actually able to operate safely and near-silently indoors to produce 1500 watts of continuous AC power – up to 3,000 watts peak. That's enough to power a freezer to ensure a long-lasting supply of safe-to-eat food. Or to use a slow cooker, a toaster oven, even a coffee maker. With a Patriot Power Generator 1500, you could have enough lights for safety and comfort. You'd be able to charge your cell phones, laptops or tablets. Power an electric blanket so you can stay warm at night. Even keep certain essential medical devices operating. And much more.

The heart of the Patriot Power Generator 1500 is a safe, state-of-the-art lithium-iron-phosphate battery (LiFePO4) battery that charges fully in as little as 3.5 hours, using the included advanced-design folding solar panel. Surprisingly, the unit weighs just 38 pounds. It fits neatly into almost any cargo space, and is great to bring along if you go camping. It can be recharged up to 2,000 times, and holds a full charge for 12 months, so it's instantly ready for use when you need it.

Interested parties can learn more about the Patriot Power Generator 1500, by logging onto **BLACKOUT31.COM** or by calling a special toll-free number 1-800-485-3509. Agents are standing by to take orders. Get started on the road to energy independence.

