

The magnesium fire starter

Mankind has enjoyed the use of fire for about 700,000 years, when early man learned its value for warmth. Early man probably discovered fire from a lightning strike. Greek mythology tells of a Titan named Prometheus who stole fire from Mount Olympus and gave it to mankind. Wherever fire came from, it is a very important tool for survival.

When considering the "big four" of survival, you come up with air, shelter, water and food.

I consider fire to be equally important. In a bad situation fire can warm you, protect you, comfort you, give you a positive outlook and help you feel in control of the situation.

Fire-building is a skill that we need to master, yet most of us get very little practice.

I recall the time I was camping in Canada with my Dad and a local Native man named Marvin, who was our guide. The guide got ready to make a fire to cook our shore lunch. Problem was, it had been raining most of the day and dry wood was nonexistent. Without a fire to fry up some fish and potatoes, we would be eating cold Spam. You can see why I was anxious about not having a fire.

Marvin told me not to worry, as he would have a raging inferno going in no time, and that he would start the fire "Indian style."

He then proceeded to dump a half-gallon of gas from the outboard motor tank all over the wood, and torched it off with a stick match. So much for my survival lesson, unless you want to lug around a Jerry can full of gas in the woods with you.

I believe in redundancy with important components of your survival kit, with fire starters being one of them. Matches get wet and can be a pain in the wind. Waterproof and wind proof matches are available and those are best.

Butane cigarette lighters are popular but don't work well in extreme cold, and can break when



Tips from the Posse

By Mark Rackay

dropped. Mine is always out of fuel when I need it. I even had the little wheel fall off in my pocket from a lighter once.

Small, hand held flares work very well, especially in very wet or snowy conditions. These can provide a high amount of heat and flame for several minutes. While they can be bulky to pack with you, they are very valuable when you need one.

The one method I always include, is the magnesium fire starter, or metal match as they used to be called.

This little tool is unaffected by water or cold. The tool consists of a magnesium block with a piece of steel rod attached to one end. With a handful of dry tinder, or some tinder you brought with you, a fire is a few seconds away.

Magnesium is the eighth-most abundant element on earth but is never found as a free metal. Joseph Black recognized it as an element in 1755. There are many minerals that contain magnesium, such as magnetite and dolomite. Seawater is also loaded with magnesium.

During World War II, magnesium was used in incendiary devices and certain bombs that were dropped on Europe. Today it is still used in fireworks and pyrotechnics. However, when formed into blocks, like the fire starter, it is very stable and safe to carry: it won't blow up in your pocket.

The first step is to gather some very dry tinder and place it inside of some type of kindling structure, similar to any other method of fire building. The process of fire building is generally the same, no matter which ignition system you use.

Using your knife, scrape small slivers of the magnesium into the tinder pile. Once you have a pile of scrapings about the size of a quarter, scrape your blade along the steel rod side to make sparks.

When these sparks hit the magnesium slivers, they will ignite and burn at 3,100 degrees



A magnesium fire-starter, along with at least one other method of fire ignition is an important survival tool that should be in everyone's pack. (Submitted photo/ Mark Rackay)

centigrade. That amount of heat is more than enough to ignite your tinder, and your campfire is started.

Fire building is an outdoor skill that requires some practice. Bad weather conditions can make it an even more difficult task. Using a magnesium fire starter takes a bit of practice and I suggest you try it the next time you build a campfire.

I believe strongly in carrying multiple types of fire ignition methods because you never know what the conditions you might be facing when you have to build a fire.

In fact, since Murphy of Murphy's law fame is usually along on my trips, I carry all four types of fire starters. Until next time, stay safe and see you on the trail.

Mark Rackay is a freelance writer who serves as a director and public information officer for the Montrose County Sheriff's Posse. For information about the Posse call 970-252-4033 (leave a message) or email info@mcspi.org.

The always adaptive beaver

A small creek flows through the neighborhood where I grew up.

Four boys, all the same age, found the adventures and discovery of that stream to be irresistible. Although we were all told to stay away (because of certain dangers), we were drawn to play along its banks particularly in the spring.

Experiencing the life within the drainage (frogs, tadpoles, crayfish, salamanders, plants of all sorts, a host of insects) shaped our world.

The flow of the creek swelled with melting snow and spring rains, and it was possible to dam the stream using sticks, rocks and plenty of mud. The blockage that we made mattered little, as the stream would eventually top the earthen obstruction.

In a similar way, the beaver shapes the world of water across North America as it alters streams and rivers by its active dam-building adaptations. Beavers (*Castor canadensis*) must always chew. Even the name rodent is handed down to us from the Latin term, to gnaw.

Two large incisors on each jaw are made for effective chomping. Enamel is only on the front of the teeth, so the backside of the tooth wears more quickly. The uneven hardness erodes each tooth into the shape of a chisel. Powerful jaw muscles enhance the effect, as the beaver is able to carve away at tree trunks.

At 30 to 60 pounds, the beaver is the largest North American rodent. This shy beast needs its mass to haul logs many times its size around streams.

Put yourself into the beaver's shoes: No chain saw, no pickup truck, no gloves; and yet this often-missed mammal is capable of adapting and creating habitat for a wide variety of life when the dam is complete.

Favoring aspens and cottonwood trees, they size them to the specific need, and drag the logs and branches to the construction site. More brush — and sometimes stones — is stuffed in interlaced with poles and limbs, and then the whole structure is packed with mud.

Their work generally appears to be

the opposite design of human earthen-fill dams like Blue Mesa Dam. Beavers design their dams to have a greater and gentler slope on the downstream side; steeper on the pond side. Blue Mesa Dam, because of the size, is engineered with the gentler slope holding the reservoir in place. The gradual decline on the impoundment side helps to distribute the water pressure more

evenly and more measured.

The log and stick variety of dams can be large, compared to their size.

An early day researcher in the Great Lakes region found some to be as high as 6 feet, and one which was more than 200 feet long, created a 60-acre pond. Keeping in mind that these are 40 pound creatures building these features, recent studies suggest that beaver dams are typically much smaller.

Busy as beavers, the dam requires constant supervision from its builders. Initial construction is usually a bit messy.

Conducting daily waddling patrols along the top and front of the dam, as well as underwater, means that these guys have a hectic daily schedule. Yet, it isn't the sound of running water, but the need for home that causes them to convert the landscape.

Castor canadensis don't hibernate, but they do live in some of the more wintry places on the continent. After the dam is built, they might construct a stick-built lodge (or live in burrows in the bank). In the fall, they will cut down limbs and branches and anchor them to the lodge below the pond's water line. Stored there, beavers will dine on those branches through the winter.

The modified home of the beaver allows many other creatures that depend on swamps, ponds and wetlands to thrive.

Beaver ponds, in fact, do even more. Research has shown that the forest canopy is opened up, stream acidity drops, nitrogen (a key plant nutrient) is more available, and there is an increase in overall wildlife habitat.

We humans shape our world on a daily basis, as well. Do we open up our world to let in light, do we decrease the toxic nature of the world in which we live, is our world more habitable by

others through the work that we do?

The lessons that my childhood friends learned through our spring-time sojourns to the creek near our homes provided insight into the natural world, which could offer insight to a very distant work-a-day world of the 21st century. Even if you never see a beaver, stopping to take in the dams, ponds and habitat that they create is worth the time in the lessons that they provide.

Paul Zaenger has been a supervisory park ranger at Black Canyon of the Gunnison National Park since 1993. Other park assignments include Mount Rushmore National Memorial



Outdoors

By Paul Zaenger

If you go:

1. Curecanti National Recreation Area: <https://www.nps.gov/cure/playourvisit/scenicdrives.htm>. Follow the dirt roads leading from Blue Mesa Reservoir up to the West Elk Mountains.

2. Colorado 62, west side of Dallas Divide: Beaver dams are common on the south side of the road. Use caution when pulling on and off of the highway. Be careful to not trespass.

More than \$6,000 IN PRIZES!

Smallmouth Bass Tournament
June 4th-12th Ridgway State Park

Grand Prize:
14' bass boat with trailer, motor and life jackets

Plus:
10 fishing packages – rods, reels, lures and more
Plus - Prizes for kids!

No entry fee
Colorado fishing license required

Learn about Smallmouth Bass and how to catch them at:
www.cpw.state.co.us/tournament

For information
970-626-5822
970-252-6000

LET'S CAMP
Shop our complete line of Marmot tents, you're sure to find one to please....

GREAT OUTDOORS Company

Marmot

10 SOUTH SELIG AVE **MONTROSE, COLORADO 81401** **970-249-4226**