OUTDOURS___

Cultivating fortitude and the enduring juniper

The first time I caught the aroma of a campfire fueled by juniper wood was on a full moon night near Lake Powell. It was my first winter working at Glen Canyon National Recreation Area, and a number of us gathered around a fire ring to soak up the shimmering light over the water.

The full moon barbecues were organized by Allen Reed, formerly a prolific writer and photographer for Arizona Highways. And they sometimes included Leone "Mike" Goulding, matron of Goulding's Trading Post in Monument



Outdoors By Paul Zaenger

tral feature of the evenings was the fire. The juniper logs would burn long into the night as talk of life in northern Utah reflect-

ed on joys of the 1940s and 50s The bouquet, though smoky, flavored the memories of Reed and Goulding, both of whom were immersed in west-

ern life for the long haul. Like them, the juniper tree seems to have a lasting resolve to endure. The Utah juniper is ubiquitous

among trees in the west. Its range stretches from California to Colorado, and from Arizona to southern Montana. It is commonly found at elevations of 4,500 to 8,500 feet.

Juniperus osteosperma – even its scientific name suggests endurance: osteo for bone or hardness, and sperma for seed. The casing of the

juniper cone (or "berry"), which holds up to two seeds, is extraordinarily hard.

Flowering of the very modest "flowers" occurs in March or April, but maturity of the cone takes up to two years The tough "leaves"

or needles have a waxy

coating to withstand fierce winds, and drying heat of summer. The shaggy, fibrous bark is uniquely adapted to for the

same. They are not giants in size ranging up to maybe 20 feet high - but their ability to last provides a lesson

They have a long carrot-like tap root

The cendense, heavy Arizona and

seemingly impenetrable rock. The water gathering root system, just below

the soil surface, fans out from the tree

up to 100 feet. The roots support an in-

genious variation among trees which

Point in Black Canyon National Park. (Courtesy National Park Service)

helps each to persist. Junipers are known for being weirdly twisted and contorted, struggling to survive in lands of limited rainfall. Curiously, the spiral grain is tied to the roots.

Perfectly straightgrained wood, like the aspen, allows sap to rise from the roots up to the leaves. At higher elevations, where plentiful rain and snowfall occurs nearly equally

around the trunk, this system is successful. Branches around the tree all benefit from nutrients as the sap flows straight upward.

The spiraling of the juniper grain rolls 360 degrees around the trunk as wooden tornado, the grains revolving around the center as they rotate towards the top.

Everyone's Favorite Tree is a textbook example of a spiral grain trunk to distribute nutrients up to the crown. It's located at Dragon

This structure allows for sap to flow from perhaps only one side of the tree, where rain might have been sufficient. As sap flows up the trunk, the nutrients and water wind around the stem.

The design is that sap would reach branches that are on opposite sides of the tree. Rainfall in the dry climate of lower elevations can be very uneven, especially in dry years.

The tree ages, the stem thickens, and new growth rings are added. The sap, winding around the trunk, may benefit several or all of the branches on its way to the crown. In dry years, this may be crucial for survival.

Biologists study their growth rings, as the trees have persisted for centuries. A juniper trunk with a diameter of 10 inches could be as old as 200 years. The steering wheel on your car is half again as wide, 14 to 15 inches

Two hundred years ago, the

Four hundred years ago, the North American experiment in self-government began at Jamestown, Virginia.

Eight hundred years ago, the Ancestral Pueblo-an people were building their dwellings at Mesa Verde. One thousand years ago, Europeans were emerging from the Dark Ages.

It isn't unusual for juniper trees to reach the age of 1,000 years.

Allen Reed seemed to have a sense of place on the land dotted by the Utah juniper. Having lived to age 92, perhaps he admired the kind of patience and tolerance that comes from living beings like these trees.

We live life at a pretty fast pace where patience and tolerance are the first to be dropped. Maybe we as a people want to live life for the long haul. Perhaps we can cultivate such traits for ourselves from the slow-growing, adaptable juniper.

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 and Glen Canyon National Recreation Area.

IF YOU GO:

• Black Canyon National Park: Best places are the North Vista and Warner Trails, www.nps.gov/ blca/planyourvisit/hikingtrails.htm.

- Gunnison Gorge National Conservation Area: www.blm.gov/co/ st/en/nca/ggnca/ggncatrails.html.
- Colorado National Monument: www.nps.gov/colm/planyourvisit/ hiking.htm.

which may probe as deep as 25 feet into it ascends the tree. Think of it as a Lessons Learned - Part Two

In continuance of our two part se ries, I will share with you several more things I learned the hard way. Hopefully, you will find something to help you along the way.

Cell Phones

We have written here before of the use of a cell phone in the outdoors.



Tips from the Posse

By Mark Rackay

Last fall, the Posse had a mission for a lost hunter. There was a snowstorm clos-

ing in fast. Fortunately, the hunter had a cell phone. The hunter

was able to locate a high spot that gave him just enough service to call for help. We were able to locate him in a

matter of a few hours. It is fortunate that we were able to find him so quickly, as he did not have the clothes or supplies to survive the night in an upcom-

ing storm. One of the problems with the cell

phone is the limited battery life. Phones exhaust most of their power when searching for service. Keeping your phone off conserves power, but

you have to keep it on in an emergency. Our hunter stayed put in the place he had service, but it drained his battery

I have remedied this by now carrying a portable power pack. Mine is capable of charging the phone two complete cycles. These packs are only a few inches long and weigh mere ounces. You can pick one up for less than twenty bucks, but when needed, it is invaluable.

The GPS units of today are much easier to use than the early ones were. You can now get them with a set of topographic maps built in. Prices are now down to some units costing less than

two hundred dollars. If you ever need to call for help, providing exact coordinates of your location will save incredible amounts of time getting help there. This is especially important when there are injuries involved. Just about all the emer-

gency agencies carry one afield. Like all electronic devices, batteries are required. My GPS uses the same type of batteries as my flashlights.

Using the lithium batteries will last longer and prevent battery leakage

during cold weather.

We had a hunter lost a couple years ago that had a GPS. He was able to provide us with his exact coordinates and we quickly got to him. His mistake was not getting a waypoint at his truck before he headed into the woods. Had he done that, he would not have needed the Posse.

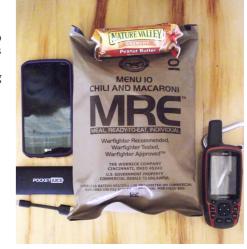
If you have a GPS, carry it with you always when outdoors. And be sure to mark your starting location. Remember, the trick to not getting lost, it is to stay found.

Food

Living off the land is a nice concept, and can be done when you have to. I spent two days in the woods once, with nothing more than trail mix to eat. It is no fun to forage for food when you are really hungry. After that trip, I changed the food I carry with me.

If you are stuck out overnight, that power bar or old chocolate candy just won't cut it. If you have the room, an MRE is a great thing to have with you. Consider bringing multiple power bars, canned meats, and an assortment of high-energy foods.

The extra food takes up valuable space in your pack, but in a survival



situation, it's great to have a full belly. A person with a full belly will think clearer and fight off the cold easier.

I hope that you can benefit from my hard-learned lessons. With my stubbornness, I will probably continue learning lessons the hard way. Until next time, see you on the trail.

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



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