

Of hard-nosed woodpeckers and football

Col. Charles Beckwith, respected veteran of Korea and Vietnam and the leader who formed the counter-terrorism unit Delta Force, spoke his mind to President Jimmy Carter for ordering the go-ahead attempt to rescue 52 American hostages held in the Iranian embassy in 1980.



Outdoors

By Paul Zaenger

He said, "Mr. President, me and my boys think that you are as tough as a woodpecker's lips."

Most of us wouldn't put the words tough and woodpeckers in the same sentence. Perhaps Beckwith was a nature enthusiast, though known for calculating and taking risks. There are three species of tough-lipped birds, which can be easily seen in the Uncompahgre Valley: the downy and hairy woodpeckers and northern flicker.

Woodpeckers are different. It's their chisel-like bill used for pecking away at bark and wood of trees, among other adaptations, that set them apart from other birds. Their bills grow throughout their lifetime, like horns of the bighorn or pronghorn, and self-sharpen as long as they continue to carve away at trees.

Special tufts cover their nostrils from the dust and chips which are set loose from the barrage of hammering. There is no protective eye gear. They

just squeeze their eyes tight and pound away.

Like a living jackhammer, the northern flicker chops into trees searching for grubs and larvae overwintering under the bark. If busy carving out a nest cavity, they will rapid-fire attack the tree for an hour or more. Then they might fly off to peck away at other wood, looking for a meal.

What keeps a woodpecker from getting a monumental headache? To start, their bodies are larger in relationship to their brains.

Compared to humans, who have a much larger brain to body ratio, woodpeckers have a 100 times lower risk of brain injury.

Still, you might expect to find woodpeckers falling flat all over the forest floor from concussions. These are tough birds. Forward bones of the skull protrude over the base of the upper beak which prevents unintended movement of the beak when striking wood.

The extra protrusion is equipped with bony struts to reinforce and stabilize the skull during pounding.

Further, a protractor muscle helps to firmly control the upper beak on impact, unifying upper and lower parts of the beak, or mandibles, and making the strongest use of the beak as a



The northern flicker is commonly seen around the Uncompahgre Valley. It's a shy bird, and it's easy to see the white patch of feathers on its back as it flies away from you. (Courtesy National Park Service)

whole. It's a busy muscle, contracting and relaxing between each strike.

Also, a woodpecker brain, compared to ours, is much more securely anchored, significantly reducing movement during all that pounding.

So this avian juggernaut batters the wood at 100 to 300 strikes per minute. The impact force of woodpeckers seems to range between 600 and 1,500 Gs. G-force, or gravitational force, is the measure of acceleration due to gravity at the Earth's surface.

Disagreement abounds when looking at the amount of G force a human can survive, say ... in a car crash. The number can vary between 50

Gs and 100 Gs. One researcher suggests that a crash of 122 miles per hour will yield 100 Gs on the human body when the air bag deploys. It is considered survivable.

Football players receive multiple hits per game. Research is not exhaustive, but some shows that football players could receive shots to their helmets in the range of 30 to 130 Gs.

Running back C.J. Anderson had the longest Super Bowl run for the Broncos two weeks ago at 34 yards. Yet, as fast as he ran, his speed was considerably lower than 122 miles per hour. Impact concerns are raised, though when injuries occur in sports.

IF YOU GO:

- The Black Canyon Audubon Society has two field trips coming up. Focused on raptors, you still might see a woodpecker. Info at www.blackcanyon-audubon.org/field-trips.
- Baldridge Park complex or any public space along the Uncompahgre River is a good place to walk and watch for woodpeckers.

The business of life seems to be full of potential hazards: car crashes, sports injuries, industrial accidents, and more. Woodpecker research is still breaking new ground, and scientists are excited to gain more knowledge. In fact, many discoveries in medicine and business come from studying the natural world.

So take a moment on a sunny late-winter day, walk along a river, stroll in a park, listen for the hammering of a log by one of the tough lipped birds. Slowing down broadens our view that our environment offers much for us to learn.

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.

Don't be blinded by snow during outdoor fun

Some year's back, I was on a multi-day hunt in the high country of our own Western Colorado. A strong snowstorm had moved in, and we spent a day and a half watching it from the inside of a tent.

The following morning, we awoke to find it very clear and cold. It was a welcome sight after being confined in a small space for so long. The skies were bright blue and the earth covered in a very bright white from the new fallen foot of snow. Without hesitation, I ventured out into the alpine tundra's sea of white.



Tips from the Posse

By Mark Rackay

After several hours, I could no longer keep my eyes open. It felt as if someone had thrown sand under my eyelids, and the pain was excruciating.

They were also tearing profusely, and I could no longer keep my eyes open. I was suffering from a case of snow blindness.

Snow blindness, also called photokeratitis, is a very painful condition that is caused by too



Being outside, on bright sunny days with lots of snow, can lead to snow blindness. Be sure to wear sunglasses and a wide brimmed hat. (Courtesy photo/ Jerry Sieverson)

much exposure to the UV rays produced by the sun. The sun's ultraviolet rays actually burn the cornea of the eye.

The symptoms may not appear for several hours. Snow blindness affects those people who venture outside in the snow-covered terrain. Like many other things, it is worse in the higher altitudes.

Hikers, snowmobilers, skiers, hunters and just about anyone who spends time outdoors, are all at risk. Fortunately, it is usually a temporary condition, but it must be treated.

The symptoms include an increased tearing, sometimes profusely. The eyes may appear bloodshot and sometimes the eyelids will twitch uncontrollably.

There can be moderate eye pain with a very gritty feeling, such as sand in the eyes. In some cases, the eyes may swell shut. Very extreme cases, or repeated exposures, may cause permanent eye damage or blindness.

The pain you feel is a result of the cornea's inflammation that occurred when it was exposed to

the sun's UV rays.

According to the American Academy of Ophthalmology, the treatment for snow blindness focuses on reducing the pain. The doctor may also prescribe some eye drops and rest for your eyes.

Until you reach medical assistance, it is important to try to minimize the damage to the eyes.

First is to get out of the sun as soon as possible. Put on sunglasses to help reduce further exposure. A cold compress on the eyes may help reduce the pain. Avoid rubbing the

eyes, as this will only aggravate the condition.

About a third of Coloradoans take medications that can actually make them more vulnerable to snow blindness. Some of the drugs that increase the risk are antibiotics, NSAIDs (such as Advil, Motrin or Aleve), cholesterol medications (statins), antihistamines and diabetic medications. If you take any of these, be especially aware of your increased risk.

Wear your sunglasses outdoors year-round, even on a cloudy day. The sun's UV rays pass

through the clouds. In the wintertime it is especially important, as the snow reflects the rays back into your eyes.

Choose the proper sunglasses. Pay attention to whether they block the UV rays rather than how dark they are. A 100 percent UV protection, or UV400 is the best. I use polarized glasses for all my outdoor activities. Add to this a wide-brimmed hat and you should be fairly well set.

If you are a snow boarder or skier, wear goggles that are designed to block the sun's UV rays. For the extreme exposures, such as prolonged activities in snow covered alpine tundra, consider a pair of Glacier Goggles. These were developed for outdoor activities at the Polar Regions.

Contact lens wearers should be aware that most brands of contacts do not provide any UV protection. There are some that have this ability, but it is limited to the Cornea and Pupil of the eyes. This leaves the sensitive tissues of the conjunctiva and eyelids exposed. Therefore, good sunglasses are still required.

Be certain to wear good sunglasses and a wide brimmed hat for all your outdoor activities and your eyes will thank you. 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.



MOUNTAIN KHAKIS JACKSON HOLE • WYOMING

GREAT OUTDOORS Company

MOUNTAIN KHAKIS JACKSON HOLE • WYOMING

Original Mountain Pant

\$59.99

Relaxed Fit or Slim Fit Styles

10 SOUTH SELIG AVE

MONTROSE, COLORADO 81401

970-249-4226