

## Critters' fire survival instincts often better than ours

by Doug Newbould



*Photo by John McColgan, Bureau of Land Management, Alaska Fire Service. Alaskan Type I Incident Management Team observed elk during a forest fire.*

As a firefighter there is one question I have been asked repeatedly over the years, "What happens to all the animals during a wildfire?" Well, it's a good question, and I don't think there is one definitive answer. Some wildland fires have a drastic effect on wildlife, while other fires have little effect. Sometimes the effects are limited to certain species, while other times all species are affected in a given area. It depends on the fire's behavior—its size, its intensity and its rate of spread. It depends upon the types of forest fuels that are present, upon the terrain and upon the weather.

The effects of fire on wildlife can be seen on different scales of time and space. There are short-term effects like displacement, injury and mortality. And there are long-term effects on populations through the vegetation they eat; moose and hares for example thrive on fire because they eat the hardwood browse (birch, aspen, and willow) that comes in after a fire. Furthermore, fire effects can be limited to small geographic areas like the Echo Lake Fire (1969) or to large landscapes like the Greater Yellowstone Area (1988).

What amazes me are the instincts, abilities, and adaptations that wildlife use to survive wildfires. Many readers will remember the incredible color photograph from the Bitterroot River in Montana this past

summer. Two elk were standing in the middle of the river while fire consumed the mountain slopes above them. I don't think I'll ever forget that awesome scene. But it is indicative of the survival instincts and intelligence that animals possess.

Mammals such as moose, elk, bear and wolves can move swiftly when necessary, and they use that ability to escape an approaching fire. Smaller animals like badgers, mice and snakes can survive fire underground, in their burrows. Birds fly to safety. Of course, some wildfires are so large and move so swiftly that many animals and even people cannot escape. Fortunately, this doesn't happen often. Usually, there is time to evacuate an area before a fire gets large enough to entrap us, both people and critters.

I witnessed two examples of wildlife survivability at the Cave Gulch Fire near Helena, Montana last summer. There was a little sub-adult black bear in the Magpie Creek valley, more or less in the middle of 30,000 acres of fire-scoured forest land. And for several days after the fire roared up the canyon consuming almost everything in its path, my fellow firefighters and I saw that young bear limping gingerly around the valley bottom. Wildlife biologists were called in to capture the bear, but they were unsuccessful. One man said he saw the bear enter an old mine tunnel and the speculation around fire camp was that the mine became the bear's refuge during the "firestorm." Apparently, the little bruin burned the pads of his feet during his amazing escape through the flames and hot ashes. If you stood in that valley today, you would wonder how anything could have survived such devastation. There is nothing left but naked black trees, crumbling cabin foundations and gray ash.

One morning while I walked along Magpie Creek, marking burned out snags that might fall on the road, I heard a very distinctive sound directly behind me. It was something like the sound my mother used to make when I got a little rambunctious in church, "Shh-hhhh!" I'd only heard that sound once before in my thirty or so years of walking in the woods, but my instincts told me to move Now! The next thing I knew, I was standing on the other side of the creek, facing in the opposite direction. To this day, I don't remember

how I got from point-A to point-B without getting my feet wet in the creek. But I think I would have won the gold medal in the standing broad jump that day.

After I started breathing again, I went back across the creek to find the critter that pushed my “launch button.” There, beneath an undercut root wad was a little three-foot timber rattler, all coiled up and chittering his little cold-blooded heart away. I had just been standing about two feet in front of his shelter when he had issued his warning, “Don’t tread on me!” To think I had been walking across a seemingly sterile landscape, my boots six inches deep in white ash, with no idea that something could still be alive in that

place. I stood there, a safe distance away this time, and thought about the paradox, “How can life be so strong and yet so fragile on this wonderful planet we live on?” And I thought about the instincts that saved me from a rattlesnake bite. Perhaps we humans still possess some of that same survivability that critters use every day.

*Doug Newbould is the Fire Management Officer at the Kenai National Wildlife Refuge. For more information about the Refuge, visit the headquarters on Ski Hill Road in Soldotna, call 262-7021 or see the website at <http://www.fws.gov/refuge/kenai/>.*