

# NEWS RELEASE

## USDA Forest Service -- Northern Region



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FOR IMMEDIATE RELEASE

### *Kootenai National Forest After the Fires*

by Deborah Richie Oberbillig

As winter's first snows blanket the forests, hunters and wood gatherers head for the warmth of a campfire at the end of the day. Yet, in August the acrid smell of smoke from over 300 wildland fires burning on the Kootenai National Forest was not so welcome.

However, mostly welcome news continues to stream in from the Forest biologists, hydrologists, soil scientists and ecologists taking a firsthand look at the burns. These fires fortunately did not burn down homes, but instead created habitats for wildlife in a fire-adapted landscape. The immediate challenge proved to be rehabilitating over 200 miles of fire lines and 150 miles of roads in need of repair from suppression efforts.

#### *Fires Burned Mostly "Cool"*

Just two percent of the 2.2 million acre Kootenai National Forest burned --about 48,000 acres altogether. The fires tended to be "cool" and rarely moved with the terrifying speed and intensity of those farther south in the Bitterroot National Forest.

"If you have low fuel moisture, low humidity and wind all together, you have what it takes for big fires like we saw on the Bitterroot," said Forest planning biologist Wayne Johnson. "The potential was there on the Kootenai, but we never had all three factors at once."

As fires raged in the Bitterroot Valley last August, tensions mounted throughout western Montana. Whose turn would be next? Drought-struck rivers ran low. In places, living trees were drier than the furniture in your house.

#### *Lightning, Wind and Finally Rain..*

Then, a thunderstorm swept over the Kootenai National Forest. The news appeared to confirm the worst fears of residents in Libby, Troy, Eureka, the Yaak and other communities in remote, northwest Montana. A Forest press release on August 12th read:

The Kootenai National Forest and surrounding communities received over 100 lightning fires from the thunderstorms on August 10-11. The Three Rivers Ranger District was hit especially hard with 51 confirmed fires. 16 Smokejumpers have jumped on several of these fires as of Saturday morning the 12th.

The news on Aug. 13th didn't help:

.... Homes in the Upper Yaak area are potentially threatened by wildfires. A Regional Incident command Team Type II has arrived to assist with fire suppression for the Yaak Complex.

There continues to be over 50 unstaffed fires throughout the forest. Priority for suppression activity is on protecting communities and structures. Fire weather conditions for Sunday August 13, calls for higher temperatures in the 90's and increasing winds with gusts up to 25 mph.

Winds fanned the flames a week later, pushing the Stone Hill and Lydia fires toward evacuated homes southwest of Eureka in the Pinkham drainage. The Kootenai Complex, just east of the Yaak community, totaled 50 fires on over 10,200 acres. Near Troy, 800 homes were considered at risk from 46 small fires.

Meanwhile, much of the forest's wildlife went about business as usual.

Libby District hydrologist Steve Wegner recounted watching a black bear at the edge of a fire, and tracks heading directly into the burn. He also witnessed five white-tailed deer nibbling lichen on trees felled by flames and a western skink (lizard) racing through the partially burned duff of a ponderosa pine forest.

However, human residents breathed a sigh of relief by early September when steady rains fell on the flames, aiding firefighting efforts. Crews shifted to mopping up hot spots and preventing fire lines from eroding.

### ***Initial Rehabilitation Efforts Completed***

The Forest has completed its short-term fire rehabilitation that included filling in firelines, installing waterbars, repairing roads and reducing the risk from noxious weeds, reported Forest hydrologist Steve Johnson, who coordinates those efforts.

"There's a real potential for sedimentation in some of our bull trout and redband trout watersheds," he said. "We had much more rehabilitation to do this time than after the 1994 fires."

The 1994 fires burned 53,000 acres and firelines tallied only 100 miles. The difference, Johnson said, was that this year there was a real shortage of firefighters, but no shortage of equipment. More than 100 local bulldozer operators and hundreds of additional local equipment and operators joined the crews.

Forest Biologist Bob Summerfield said the Forest placed mandatory washing stations for all equipment coming and going to prevent spreading weed seeds into new areas. Some fires burned on the eastern part of the Forest where they already face a tough problem with tansy ragwort, he said. Those areas are receiving special attention from the Burned Area Emergency Rehabilitation (BAER) team of specialists working throughout the Northern Region Forest Service. A tansy ragwort spray project is underway with funding from both the Forest Service and Plum Creek Timber.

### ***Fires Leave Forest Mosaic***

With fire rehabilitation in full swing, Forest Ecologist Dan Leavell has turned his attention to the patterns etched into the forests from the blazes. He likes what he sees, which is more diversity.

"You have a landscape mosaic resulting from the fires," he said, explaining that historically the forests of the Kootenai always showed signs of burns, both large and small.

Leavell can point to 2,000 years worth of fire history in Northwest Montana from research of pollen and charcoal studies. The years 1200 and 1910 registered as high on charcoal accumulation--big fire years that corresponded with hot, dry weather. The year 2000 won't show up much, despite similar drought in the region.

The fire mosaic this year defies any logical pattern, as flames raged through the treetops or burned low to the ground according to the intensity of the wind, temperature, and the land's topography. The two-percent of burned forest represents roaded and roadless lands, dry ponderosa pine stands and lush cedar hemlock forest. The Forest has an active timber harvest program with extensive roads, clearcuts and plantations, in addition to protected lands like the 94,460-acre Cabinet Mountains Wilderness and the Ten Lakes Scenic Areas on the Canadian border.

"I saw 20-year-old plantations burned up totally and the same fire on another aspect burn lightly under lodgepole pine," Leavell said.

### ***Nature's Prescription for Bighorn Habitat***

In some places, the fires happened to match up with planned prescribed burns on winter and summer ranges for elk, deer and bighorn sheep.

For instance, the Ural-Tweed bighorn herd that roams the east side of Lake Kookanusa is the only remaining native bighorn sheep herd in northwestern Montana. Prescribed fires in their winter range are designed to remove encroaching trees on the grasslands and to invigorate plants with fire's fertilizing powers. This year, nature wrote the prescription.

"It made us a whole lot more nervous without controls in place," said biologist Wayne Johnson as he took stock of the benefits for wildlife habitat from the 2000 fires.

### ***Fire-killed Trees Attract Woodpeckers***

About 10-15 percent of the Kootenai fires burned hot enough to kill trees. Johnson views that as good news for wildlife. The dead trees will soon show signs of life, as first beetles and then black-backed woodpeckers descend for a feast. These stand-replacing fires will have highest value for woodpeckers in the first five years or so.

Where fires burned hot at higher elevations in the Yaak country and Cabinet Mountains, Johnson expects huckleberry fields eventually to rebound with vigor. It might take a decade or so for the berry

fields to be back in full swing producing the sugary, plump fruits that grizzly and black bears require each fall before a long winter's hibernation.

Similarly, it takes time after stand-replacing fires in high elevation country for the habitat to be ideal for snowshoe hares and lynx, Johnson explained. After 15-30 years, a dense young lodgepole/fir forest offers both food and cover even in deep snow. When snowshoe hare populations go up, so do the numbers of its chief predator.

According to lynx researcher John Weaver, some fires burned in the Yaak study area where a team of biologists is focusing on the effects of pre-commercial thinning on hares and lynx.

On one hand, snowshoe hares, lynx and bears (in search of huckleberries) gravitate to older burns. On the other hand, species like elk, deer, bighorn sheep will benefit the next growing season from an understory burn. Similarly, black-backed woodpeckers and other songbirds move in almost immediately after a stand-replacing fire.

The lesson? Fire disturbance has always been a regular visitor to this part of the world, despite its reputation as home to groves of giant cedars and hemlocks towering above lush ferns and mosses.

### ***Fire Tells More Than One Landscape Story***

"We have 11 different forest types here and each has its own fire story," Leavell said.

Snuffing out fires has changed those stories, especially in the low elevation ponderosa pine forests, he said. Historically, fires burned through the understory every two to 20 years, creating park-like stands of large, old ponderosa pine trees with plenty of open grasses and forbs for elk and deer. Sometimes those fires killed trees, other times not. Today, heavy fuel build-ups of dense Douglas-fir makes those stands more prone to stand-replacing fires when they burn, which then kill remaining large diameter pines.

In contrast, hike up a mountain to timberline where whitebark pine trees cling to windblown slopes and fire intervals may be as much as 300 years. When the forest burns it tends to be stand-replacing, which sets the stage for a new generation of whitebark pines--planted by the fire-adapted Clark's nutcracker, a bird that harvests cone seeds and often caches some in burned clearings.

Even aquatic life (from fish to salamanders) are adapted to fires that burn through watersheds. Steve Wegner didn't waste any time before he and crews were out surveying watersheds. They kept an alert for potential erosion problems from hydrophobic soils, which can occur when intense heat seals the top layer of soil with melted pitch and other materials. Water then runs off, rather than soaking into the ground.

Wegner did not record any hydrophobic soils and rated the results overall for watersheds as "mild." For instance, a sample point on three acres of O'Brien Creek, the municipal watershed for Troy showed: 80 percent of the forest duff consumed, no root charring, 200 feet of the riparian area burned and within that 30 percent of the vegetation unburned.

He does not anticipate restoration needs for watersheds from the actual fires. However, he and fellow hydrologist Steve Johnson concur that the fire suppression efforts caused more damage to the landscape than the actual fires.

While it's tough to see wide bulldozer lines in the aftermath of the fires, Wegner can appreciate the difference between hindsight and actions taken in the heat of the moment, especially with an international team coming together to apply the best strategies they could muster given a shortage of crews.

### ***Public Comment Wanted on Fire Assessment***

A team of specialists has just completed an assessment of most of the Year 2000 fires across the Forest to help prioritize long-term rehabilitation and restoration projects to begin this winter. Projects may include noxious weed control, tree harvest, reforestation and placement of erosion control structures. The document will be the subject of public meetings in November. Comments are welcome.

For the hardy people living year-round in this tucked away corner of Montana, fire will always be one of the challenges they face. Long after the drone of excavators repairing fire lines and roads has ceased, there will be stories about evacuations, visitors from faraway places, and campfire talks about fire-proofing their homes and properties before the next wildland fires.

The landscape that draws people here owes its beauty to a force that appears destructive, yet ultimately breathes life on the land. If you walk in one of the burns next spring, you will see green plants bursting from the ashes, animal tracks etched in blackened earth and the flash of bird wings.