

New Mexico – Smells Like Green Chile AND Forest Fire

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On Wednesday the first of June, one of us was working in the Zuni Mountains, southwest of Bluewater Lake. Our forestry crew was aware of the size and severity of the Wallow fire and its smoke, but also of the fact that it was 120 miles to the southwest. As the afternoon wore on, and in the face of wind so strong you had to hold your hat on, the smoke increased to the point it blocked the sun, and most poignantly, it began to smell like a forest fire. We became convinced that when we got back to camp, we would find a note there saying we would have to evacuate because a new fire had ignited up wind and was threatening to overrun us. We got back to camp but found no note and eventually learned that *all* the smoke was from the Wallow fire.

Our reaction to the smoke – we ought to have known better - got me to thinking about how far we have come in how we think about fire and smoke.

Tree rings tell us that before the coming of the railroad and the ecosystem went out-of-whack, the fire return interval in the ponderosa pine forests of New Mexico was 7 to 12 years. Another way to say that is that prior to 1880, a ponderosa pine had fire at its base about every 10 years. Given NM has 2.8 million acres of ponderosa pine forest, this means that in an average year, about 280,000 acres burned. The tree rings don't tell us when the fires burned, but they most likely burned in the spring, between the snow melt and the start of the monsoons. Most of the fires would have started by dry lightning just before the monsoons, would have been everywhere at once, and would have been knocked down but not completely extinguished when the monsoons started.

An acre of typical NM ponderosa pine forest supports 30 tons of biomass – litter, duff, down woody debris, understory grass and shrubs, and live and dead standing trees. When that biomass burns, much of it is released as smoke. As we write this, the biomass that last week was in the Las Conchas area of the Jemez Mountains is now in a plume of smoke that stretches over Los Alamos, released from a huge area and virtually all at once. Contrast this with historical smoke release, when biomass loads were somewhat less than they are now, and the low-intensity fires burned only a fraction of that biomass. Prescribed fire seeks to mimic these historic fires; we can't avoid releasing smoke, but we want to release it like we want to burn, with minimal damage to the system.

Had we lived then, we would have smelled the historic fires, much like Las Vegas can smell the prescribed burning in the Santa Fe watershed. Because they were not life-threatening, we would have accepted the smoke as a part of the natural order of things, like the smell of roasting green chile in the fall. We need to get back to this acceptance.

Every agency involved with land management in New Mexico is working toward lowering biomass levels to what they were historically, and to restore ecosystem function to what it was. The last, most difficult part of this is reintroduction of fire. Fire means smoke. The land managers we know are willing to take ownership of their smoke: to admit they make it, to minimize its production, and to minimize its impact

on human populations. They need the understanding of the public that smoke is a part of our natural southwestern world.

Our neighbors to the east made bumper stickers that read “Oklahoma is Native America – Let’s keep it that way – Support prescribed burning.” Of course, like all of North America, New Mexico is every bit as native as Oklahoma. Supporting controlled burns *and accepting their smoke* is akin to jury duty, a necessary although potentially inconvenient and unpalatable civic duty. A prominent New Mexico forester recently asked, “How do you want your fire, large or small?” If the answer is small, then supporting and tolerating smoke from prescribed fires has to be a part of native life.

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