Fire & Forest Management

Ponderosa Forests of Yesterday

Yesterday…
The park-like ponderosa forest east of the San Francisco Peaks. October 18, 1903.

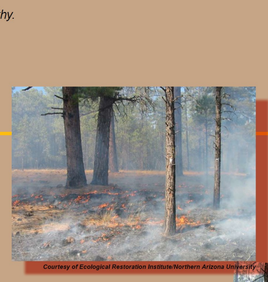
… and Today.
Today's forests are overgrown and unhealthy.

Park-like Vistas

Over a century ago, our landscape looked much different than it does today. Forests had an open park-like feel where an acre might contain 20-40 large healthy trees and only a few scattered smaller trees. Trees grew in clumps interspersed with expanses of thick bunches of native grasses.

Fire: Nature's Clean-up Crew

In the past, ponderosa pine forests evolved with fire. Frequent, low-intensity fires burned through the grassy understory every 2-14 years. These fires helped maintain the openness of the forests by clearing away small, unhealthy trees and brush. Larger trees, protected with thick, insulating bark, escaped serious harm.



Sustainable Healthy Ecosystem

Early forests had healthy ecosystems. Ash produced by frequent, low-intensity fires helped recycle nutrients into the ground. Plants and soil organisms flourished providing habitat and food for small mammals such as squirrels and mice; large animals like deer, elk and antelope; and many bird species.

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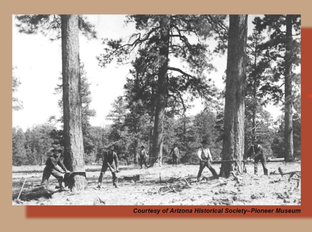
What Happened to Our Forests?

Humans Happened!

Grazing

Poor grazing practices by early sheep and cattle ranchers greatly reduced the amount of native grasses, breaking the cycle of frequent, low-intensity fires. Reduced competition from native grasses allowed pine seedlings to grow in thick patches.



Logging

Past logging activities removed large, fire resistant trees and left understory brush, small trees and logging waste to fuel large fires.

Fire Suppression

Fire suppression allowed thick seedling patches to grow into dense stands of small trees, known as ***dog hair thickets***, which lead to an accumulation of flammable forest debris.

The Result: A Decline in Forest Health

Arizona's forests have been overwhelmed by the growth of small trees that would have been removed by fire. The once prevalent openings have been nearly eliminated. Trees compete for water, light and nutrients which makes them susceptible to the effects of drought, insects, disease and wildfire.

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How do we protect our forests?

What's Being Done?

To reduce the threat of wildfire and restore forest health, forest managers cut and remove trees and perform ***controlled burns***. Removing a portion of the forest reduces plant competition for light, water and nutrients, which allows the forest to grow healthier.

Which Trees Go?

Trees that are diseased, damaged, or unhealthy are cut and removed in order to improve forest health. Different areas of the forest require different methods, or ***treatments***, for how the trees are removed

Thinning

Tree removal, or thinning, is a treatment used to improve forest health.

Fighting Fire with Fire

Land managers often use fire as a tool to restore forest health. Known as controlled burns, these fires are conducted under specific conditions to minimize the risk of wildfire. Controlled burns eliminate unwanted forest debris and reintroduce fire in its natural role.

Broadcast Burns

After forests have been opened up by tree removal, broadcast burns are ignited to reduce the accumulation of pine needles, twigs and branches that could fuel a larger fire.

Broadcast Burn at The Arboretum at Flagstaff

Slash Piles

Slash is unusable material consisting of branches and tree tops. Slash results from tree removal and is often piled and burned.

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