



FRIENDS OF NORTHERN ARIZONA FORESTS

NEWSLETTER

September 2016

FoNAF President Announces Annual Meeting Date

Fellow FoNAF Members and Friends:

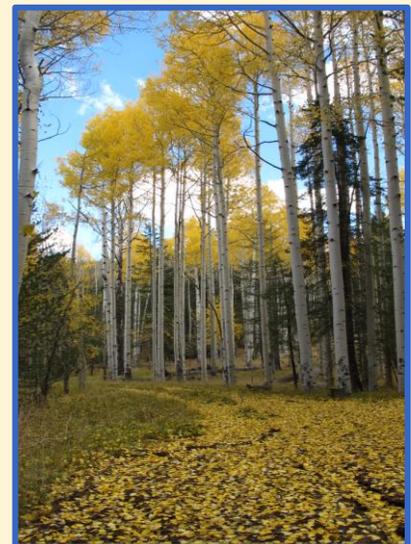
Now that Labor Day has passed we're heading into our fall season with the aspens aglow and temperatures are starting to cool off. We've had a busy summer work season and you'll be able to read about some of our various activities in the following pages.

With fall comes our Annual Meeting, scheduled for Wednesday, October 19th, 4-6 PM at the Flagstaff Ranger District Office on Hwy 89N across from Flagstaff Mall. At the Annual Meeting we'll present a summary of our activities, discuss plans for the next few months, have a presentation on our financials, memberships, and last but not least we'll hold our election of officers and Board members.

I also encourage you to read the summary report prepared by Ralph Baierlein about the FoNAF sanctioned study that he conducted over the past three years. The research's intent was to find a browse-resistant strain of aspen that deer and elk don't find appealing, allowing new growth to thrive and mature. I think you'll be surprised at the results.

We hope to see you on the 19th at the Annual Meeting!

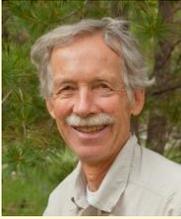
Tom Mackin, President



In this issue:

Browse Resistant Aspen	page 2
Aspen Team's Summer	page 4
"Do You Know...."	page 5
PSAR Season Wrap up	page 5

A Search for Browse-Resistant Aspen



Ralph Baierlein

Friends of Northern Arizona Forests, Flagstaff, Arizona

Here and there on the Coconino National Forest, stands of young aspen thrive. No fence, no steep slope, no especially rocky terrain, and no natural jack-strawing from a jumble of knee-high fallen aspen.

This photo illustrates such a site.

Friends of Northern Arizona Forests (FoNAF) asked itself, could these genotypes possess natural resistance to browsing by elk and deer, perhaps because they have high concentrations of bitter chemicals (such as salicin)? More importantly, if we could generate saplings with the very same genome and then plant them elsewhere on the forest, would the saplings resist browsing and thrive? We set out to answer that question.



In the years 2011-2014, FoNAF collected 119 roots from six locations within 20 miles of Flagstaff and at elevations ranging from 6850' to 8750'. After a disastrous first year in a respected greenhouse, we turned to the Research Greenhouse of Northern Arizona University. Phil Patterson skillfully produced some 2,000 saplings—many a meter tall—from 86 different roots.

In the years 2013-2015, FoNAF planted at three test sites: 347 “control” saplings went into exclosures, and 745 “test” saplings were planted outside. For a year, we provided protective cones and mesh sleeves—to facilitate root growth despite a tendency for elk to pull up plants wantonly. Then the protection was stripped off in mid-July, and the real test began.

In August 2016, I made inventories of each test site. The criterion for a “healthy sapling” was “leaves all the way to the top of the original stem.” By that standard, the 2013-2015 controlled exclosures showed healthy saplings at percentages of 26%, 82%, and 67%.

The next photo shows a crew watering the 2013 planting and illustrates the scale of the project.



In contrast, I could not find a single healthy sapling among the 745 test saplings. Those saplings were in one of three conditions:

(1) heavily browsed, (2) stem dead or heavily browsed, but some leaves at the base, or (3) just plain dead or missing.

FoNAF had set out to answer the question, if we could generate saplings with the very same genome and then plant them elsewhere on the forest, would the saplings resist browsing and thrive? The results of the study provide a clear answer: No. That's not the answer that we had hoped for, but at least it's unequivocal. Our results from all three test sites show that elk and deer would destroy any saplings from the 86 roots that we tested if those saplings were planted on a landscape scale on the Coconino NF.

Here's another way to state the outcome. The apparent resistance to browsing that the genotypes show in their original sites does not carry over to planting at other sites on the national forest.

Of course, one then wonders what provides the "apparent resistance to browsing" in the original sites. Suggestions have been offered, but I will avoid speculation and will propose no explanation here.

Ralph also wrote a full, multi-page report on the project that contains much greater detail of each stage of the project by year and the statistics that are often discouraging. Needless to say the results were not what Ralph and FoNAF had hoped for, but we are glad to now understand more about the techniques for propagation of aspen varieties and how wildlife (including gophers) responds to them.

The full report can be found in FoNAF's website in the "Aspen Programs" section by copying and pasting the address below into your browser:

<http://www.friendsofnorthernarizonaforests.org/page-1511008>

Aspen Team's Very Busy Summer Provides Continued Protection for Aspen

Members of the Aspen Team have had a busy but productive summer, and we are happy to share our accomplishments with you:

- Constructed three new exclosures to protect young aspen – one as part of the US180 aspen regeneration project and two in the area west of US180, one near FR193 and one near FR245
- Built three log-worm fences to protect riparian areas – one at Broliar Park and two at Sheep Spring
- Removed an old exclosure on Coulter Ridge (east of I-17) that was no longer protecting anything that needed protection and that was endangering wildlife in the area – we had the help of the Flagstaff Ranger District Wildlife Crew
- Made emergency repairs to four exclosures along the US180 area and four on the Mogollon Rim District – General Spring, Merritt Draw (2) and Houston Draw
- Rebuilt more than a half mile of pasture fence along FR514 north of the Peaks, replacing some old sheep fence with new barbed and smooth wire to allow pronghorn to move through it – joint effort with the FRD Wildlife Crew
- Raised more than a mile of pasture fence along FR9003R working again with the Wildlife Crew

As the weather turns cold and the hunting season begins we will spend more time checking all 70 of our exclosures and making sure they are ready for the snows.



Dave Downes
Aspen Team Coordinator
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Do You Know the Answers.....?

1. How many national monuments are in Arizona?
2. How fast can a pronghorn antelope run?
3. What are the names of the four tallest peaks in the San Francisco Peaks?
(find the answers on page 6)

2016 PSAR Program Wraps Up a Successful Season

Its mid-September, the Bracken fern are brown, the alpine sunflowers are gone, the Aspen are beginning to turn yellow, and squirrels and bears are frantic to store away food for the long winter. The monsoon season is passing. There is a deep chill in the mountains. And the hikers on Mt. Humphreys Trail are getting fewer in number. The 2016 PSAR season is coming to a close.

When we started seventeen weeks ago, USFS Flagstaff District Recreation and Wilderness Staff Officer Brian Poturalski led sixteen volunteers in a training session that emphasized our focus on increasing hiker safety and improving visitor's overall experience on the trail to the highest point in AZ. Some of us had experience with PSAR while others were new to PSAR, but we managed to maintain about 16 volunteers. Regardless of their assignment as a trail "rover" or a "greeter," all delivered exceptional "engagement" so hikers understood the challenge, conditions, requirements, risks and joys of hiking to the 12,633' peak.

The numbers tell the story on how successful the program has been. And interesting too! We have engaged more than 8,000 visitors, sometimes with more than 400 a day. We have seen 80 year olds, 2nd and 3rd graders, global citizens, Flagstaff regulars, trail runners, campers, bare footers, Kilimanjaro trainers, first timers, 50 State Peakers, families, in shape and out. We delight at seeing mule deer, coyote, and black bear. It's been an experience.

The mountain is un-forgiving and we have gotten to know the extremes and changes in the environment. The beautiful cloudless, clear air, warm days to the 60+ mph winds, 34 deg wind chills, quick forming thunderstorms, hail and frozen rain. And we have worked hard to help the hikers recognize these changing conditions. But unfortunately not all heed our advice.

We have done our part to assist those for whom the challenges of the trail are a bit too much. Rolled ankles, scrapes, cuts, and altitude sickness are most of what we have seen and provided assistance slow walking them down off the mountain. There have been a few actual County S&R callouts, but not many. A suicide and a lightning strike fatality marred the season. But it could have been worse.

Some of our greatest successes have been providing worthy alternative hikes and walks on the Peaks so that those who have come a long way for a one day opportunity to hike the Peaks will have a safe and rewarding experience.

The season is almost complete. We have learned a lot. The partnership with and support of the Flagstaff District USFS has been exceptional. We have done good work. FoNAF volunteers have been exceptional and have helped thousands. And they need a rest.



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Answers to “Do You Know:”

1. 18, more than any other state
2. In excess of 60 mph
3. Humphreys Peak (12,633 ft), Agassiz Peak (12,356 ft), Fremont Peak (11,969 ft), Aubineau Peak (11,838 ft)

Friend of Northern Arizona Forests

Mission Statement:

Friends of Northern Arizona Forests is dedicated to assisting the United States Forest Service in maintaining, protecting, and restoring the natural and cultural resources and the scenic beauty of our forest lands for the enjoyment and use of present and future generations. We are a solution-oriented volunteer group that works in partnership with the Forest Service to assist the Service in tasks it does not have the staff or the funds to accomplish on its own. In addition, we seek to connect the community and the Forest Service to the benefit of both parties and of the forest itself.

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