



Thinking Like a Restoration Project: Lessons Learned Across Time and Landscape

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My back yard when I was a teenager and young adult: Nesting shoveler ducks, screech owls, black salamanders, sandhill crane flocks with their wings set and their calls waking me, heritage size burr oaks, swamp white oaks, fifteen Carex sedges, bulrushes, rushes, turtleheads, obedient plant, winged loosestrife, gorgone checkerspots, and sooo much more!

Needless to say, a privilege and an opportunity to learn and grow.



What we will review together:

1. Just reviewed--Where I came from so you understand me somewhat
2. Importance of relationships
3. How to think at the scale of a landscape while often acting on the scale of a single urban lot
4. Adaptive Management
5. Importance of technology and getting to know it and love what it does while tolerating its foibles
6. Invention comes from the past and present and brings us into the future. You will fail at some tasks and projects. This will lead to other ways and successes for those coming later. Don't dare let that bother you!
7. Doing things that have never been done before is what those who love something do.
8. Set goals and objectives that are just out of what you think are in reach. Constantly look for ways to make more happen with less time, effort and dollars.
9. Other stuff as we get sidetracked (in all honesty)

Relationships:

Those who succeed alone suffer needlessly without help and camaraderie.

We find we learn best from exchange of ideas and information. Some of the best epiphanies I have had came from casual conversations with others thinking and discussing topics we held in common.

You can't succeed beyond what you already know if you don't try something different.

Pictured, Chuck Grimes, inventor of the Grasslander Seeder, along with a small Grasslander (yellow) and an Ag-Renewal Flailvac (inventor Weldon Miller, not shown) delivers the equipment to a state park I work at.





Scale and tempo

Scale is important

Tempo is important

Small stuff is important

Detail is what keeps processes successful

There is a rainbow waiting for your efforts



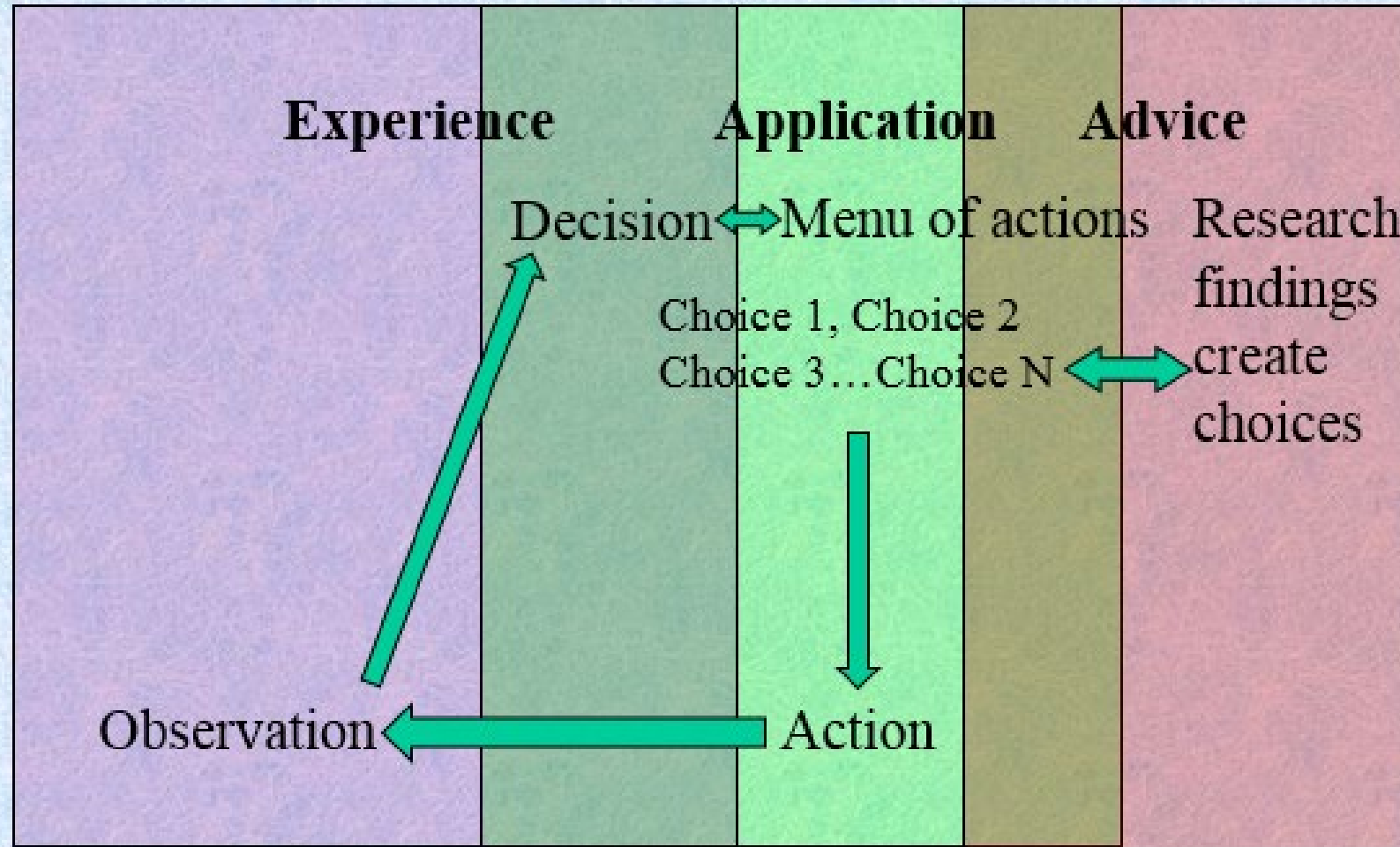


Big picture is also important for the long haul

Plans, Networks, Meetings, Information Exchange and New Ideas are all essential



Adaptive Management



How to think at the scale of a landscape while often acting on the scale of a single urban lot

1. Join groups of like-minded folks with similar goals. Gather and give information in your groups. Test ideas. Do something small well. Welcome new minds.
2. Scale up the successes by a factor of ten. This could be a joint effort between those who did well at the factor of one level, with a chosen leader who is willing to coordinate the larger scale.
3. Work with State and Federal interests, who will likely have information networks that will empower you with grants and program dollars to leverage what you have into more.
4. Don't forget the private folks. The best partnerships are mixed alphabet soup with mixed last names enjoying their challenges and successes.
5. Someone has to measure something that will determine the outcome. With ACF my guess is a forester will know.





Choose a good donor population and know your reference site options. There are usually more than one type of reference site for a tree species, based on soils/geology, moisture gradient, known pathogen distribution, climate, elevation and aspect.

Pictured—donor site for pine flatwoods seed harvest. Not quite reference quality yet.
Seed being hand collected on right side

Keep in mind that there are many illusions along the way that must be debunked, tested, filtered and circumvented. Old information will need testing. New ideas also need vetting.

20 ft tall cherry in Minneapolis/St. Paul, MN
Yummy!



Optimize methods for collecting seed at scale


1. Hand collection
2. Machine collection





Recognize patterns. These are both grasses, but they are not the same grass. Still, they have very similar structure when looked at very closely.



A photograph of a brown dog swimming in clear, light blue water. The dog is seen from the side, with its head and back above the surface. A speech bubble is positioned to the left of the dog's head, containing text. The entire image is framed by a thin white border.

Don't give up before you reach a landing point. Keep your head above water. Patience is key with long-term projects.







It's gonna get ugly before it gets beautiful! Be proactive about transitional stages in public access areas with polite signage



Blooms only between 4 pm and 630 pm
Blooms only in August through October
Near impossible to find without blooms
or the search image of the bud or spent
bloom. Took me five years to identify it
in seed

There is much to be learned from
looking at the right time and place that
we don't know we don't know!





Hmmm, which path to take to get to success?



Epiphanies will happen. I discovered a pattern in FL sandhills involving this grass

The person who
says it cannot
be done
Should not
interrupt the
person
doing it.
Chinese Proverb





The end is as important as the start.