MacCready Reserve wrap up

These notes were compiled August 16, 2016. This wrap up discussion followed introductory presentations and field tour stations led by Lars Brudvig (Michigan State University), Mitch Lettow (former graduate student & Southwest Michigan Land Conservancy), Patrick Duffy (Kellogg Experimental Forest), and Mark Mackay (Michigan DNR). Notes were compiled by Craig Maier, coordinator of the Tallgrass Prairie and Oak Savanna Fire Science Consortium.

Nuggets – what is one thing you will take away from this field day?

1. It was valuable to learn about the rationale for slow approach to canopy thinning (especially in context of response of nuisance natives to greater thinning)
    a. Follow up - Patrick noted two-stage thinnings are a common forestry approach
2. I might forget the details, but the demonstration site was effective – being able to see the differences in treatments, side by side, across trails is really memorable.
3. Pollinators – saw that different insect functional groups responded differently to different treatments – suggests importance of heterogeneity – using different treatments across a site to provide habitat for different groups of species with different needs
4. Impressed at the rate of the pollinator response
    a. Follow up - Seed bank is pretty strong here, so there was a rapid response of understory to drive pollinator response
5. Management tools – using propane torch to get rid of buckthorn seedlings (after cutting/treating established buckthorn, kill newly germinated buckthorn seedlings before they develop a root system)
6. After seeing this, I feel like we are on the right path with the techniques we've been using. There's research behind (supporting) management recommendations.
    a. Participant Bob Kellum recommends promoting these management approaches more broadly, given backing by MSU research.

Questions – What is one question you had that was not answered, or a new questions raised by the tour?

Questions were sorted into the following categories.

Methods

1. Currently the canopy is relatively closed. Do you plan to open up the canopy more?
    a. Reply: Anticipate further thinning as next stage of the restoration experiment.
    b. Reply: Could change quickly with windthrow or ice event
2. How was two-year fire return interval chose? Annual burning is recommended for oak savanna restoration during initial restoration phase in WI, IL, IA, MO – is that different here?
    a. Reply: We are burning more frequently than we think oak savannas burned historically, and we expect that fire return interval will be lower in the future.
3. How would burning in different season affect these outcomes?

Prescribed fire implementation

4. This kind of thinning results in heavy fuel loads, potentially here for a long time. We discussed different approaches to burning and fuel reduction, but what are the tradeoffs?
    a. Doing the burn quickly and spending a lot of time mopping up
    b. Conducting a burn slowly and avoiding lighting heavy fuels and snags, but taking a long time from ignition to wrap up
    c. There might be interest in a oak savanna/woodland burn workshop (if there is a hands-on component)
5. During the burn this year, there were chimneys/snags on fire – could that have been avoided with more preparation?
    a. Reply: Prep included raking around the snags.

<u>Site-to-site variation</u>

6. How would pollinators respond at more degraded sites? (see nugget 4)

<u>Other objectives</u>

7. Need recommendations for other wildlife response

<u>Deer</u>

8. How do deer affect the plant community here? Is it different across different treatments?
    a. Reply: Pat Brose, USFS, has research from PE using deer exclusion fence to look at deer impact
    b. Reply: In PE, deer exclusion fence is one of the tools needed for oak regeneration