

Stewardship Network Notes
15 March 07
NEW Center

The Stewardship Network meets the second Tuesday of the month at Bruegger's Bagels on North University, UM--Ann Arbor Campus, from 7:30 to 8:30 AM. The same topic is repeated on the third Thursday of the month at The Nonprofit Enterprise at Work (NEW) Center, 1100 N. Main, Ann Arbor, from 12:00 to 1:00 PM.

Topic: Prescribed Burning

Why burn?

- Burning favors the native flora of the area, which are mostly fire adapted, and are stimulated by the fire.
- Burning kills or inhibits most nonnatives and invasives, which have an inappropriate ability to take over available sunlight and water. Some invasives actually change the chemistry of the soil, further choking out natives and altering the entire ecology.
- Without fire, grasslands are succeeded naturally by brush lands, followed by woods, and the prairie ecology is lost.
- Without regular fires, the thatch increases, and the next burn will be hotter and higher, possibly more damaging to the ecology and wildlife.
- Native Americans in this area burned, establishing and/or maintaining the prairie ecology.

Burn when?

- Burns can begin as soon as spring air and ground temperatures and humidity obtain, and continue until green spring growth inhibits it. This is roughly mid-March through early May.

Procedures

- All appropriate fire authorities must issue permits. These authorities will have differing requirements for permits, and adequate lead time must be allowed. Often (as required) they are notified when the burn begins, and when it ends. Giving the public information broadly forestalls panic when fire or smoke is spotted by uninformed individuals.
- Burns are scheduled generally in advance, and specifically depending on every day's humidity, and wind direction and velocity. This is both in order better to control the burn, and to keep smoke out of neighborhoods and roads.
- Protective gear and training requirements vary from the casual to the elaborate, depending on what may be required by fire departments, the size of the burn and who is conducting it, and what is available. The water source is a given.
- Prominent signs advertise and publicize the burn for public information and education.
- Be prepared for the fact that despite thorough preparation, a sudden wind change during a burn can--and frequently does--alter the direction and conditions of the burn.

Unknowns, and the need for cumulative research

- How useful is burning in woodlands? Some woodland species long dormant are

stimulated into nondormancy by a fire. But fires can be more damaging to woodland species and individuals than is the case in open fields and prairies.

--What is the effect, and what is the desired effect, of burning on earthworms? Burning removes the leaf clutter on which they feed. Is this a problem or an advantage? The number of earthworms in our area is much greater than it was in previous times (decades? centuries?). Their foraging on leaf clutter leaves the soil unprotected and subject to drying out.

--Could burns replace the destructive use of bulldozers in clearing some areas? Bulldozing destroys not only surface growth, but seed banks, including seeds of rare or nearly-extinct species.

--What is the actual effect of burning on small wildlife? How many escape or survive, and what and how great is this effect on their population?

--To what is the "native" Michigan landscape man made/Indian-made? The larger question is how to participate in an evolving ecology in a way that keeps it healthy and diverse.

Sources of information

Prescribed burning is a relatively new field (ohhh); there seems to be little research on these and related questions. Some of these sources include:

--The Michigan Prescribed Fire Council, www.firecouncil.org. The Council holds yearly meetings with concurrent sessions on related topics.

--The National Oceanic and Atmospheric Administration, www.noaa.gov.

--NAP (City of Ann Arbor Natural Area Preservation Dept.) is compiling/has compiled some information on the historical use of fire in the local landscape. Michelle Crowder and others can put you in touch with this. www.ci.ann-arbor.mi.us/PublicServices/FieldOperations/NaturalAreaPres/nap_main.html