

The Southeast Nebraska Flagship Initiative is a partnership whose purpose is to work collaboratively on conservation with in the Biologically-Unique Landscapes in southeastern Nebraska. Flagship steering committee members include;

- Northern Prairies Land Trust
- Spring Creek Prairie Audubon Center
- The Nature Conservancy
- The Nebraska Game & Parks Commission

The Flagship Initiative was formed through the Nebraska Natural Legacy Project.
www.nebraskanaturallegacy.org

Weed Wiper Available for Use

The Tallgrass Prairie Partnership Office has obtained a weed wiper to use for herbicide application on aggressive shrubs and invasive weeds. The weed wiper uses a roller to apply herbicide directly to the plants without affecting plants shorter than the targeted invaders. It works similar to a soybean wick or other wick applicators except that the roller is designed to apply more herbicide to each plant than a rope wick. The machine can be pulled by ATV, tractor, or pickup and can be borrowed from the Partnership Office by calling Kent Pfeiffer at 402-228-0276.

Update on Southeast Flagship Initiative - by Jarren Kuipers

It has been ½ of a year since our last newsletter and much has occurred since that time. The Habitat Focus Group has continued to do habitat work on private lands and the demand for these projects has been high, even with the repressed economy. Roughly \$250,000 of Nebraska Environmental Trust and Landowners Incentive Program funds were allocated to new habitat projects, which involve tree clearing, prescribed burning, and burn-driven grazing. Prescribed burning in the flagship area likely hit at an all time high this spring. The Annual Tallgrass Prairie Seminar in January went very well again this year. Roughly 90 people attended to learn more about carbon sequestration in prairies, grazing management, marketing your prairie and other topics.

The Research Focus Group is also actively supporting three research projects this spring and summer. There are two graduate students studying the potential impacts of grassland fragmentation on prairie insects. Chris Wood of UNO is trying to understand how bees respond to the landscape around them, especially in areas where grasslands are mainly in small fragments. Kody Unstad (UNL) is looking at the ways insect communities differ between the edge and center of prairies to help predict how increasing or decreasing habitat fragmentation might affect prairie insects. Both students have been meeting and talking regularly with Chris Helzer and Craig Allen (and others) as they develop their ideas and proposals. The third project is being led by Stephen Winter of Oklahoma State University, who has initiated a patch-burn grazing research project in eastern Nebraska. His research is funded largely through the Nebraska Game and Parks Commission and will examine the effects of different grazing systems on cattle condition, cool season grass invasion, and plant species diversity.

The Education Focus Group initiated their first focus group meeting this spring at Homestead National Monument to analyze the basic needs across the flagship area related to tallgrass prairie education and to brainstorm on the development of future education events and resources. Spring Creek Prairie Audubon Center also completed the development and printing of a tallgrass prairie poster that features illustrations of common and unique prairie wildflowers of eastern Nebraska and their flowering times. They are currently developing a brochure for the Southeast Prairies Biologically Unique Landscape (BUL), which is nearly ready for printing.

A Plant That Should Scare You and Others That Shouldn't

Sericea Lespedeza – by Kent Pfeiffer

For the past several years, there has been growing awareness among county weed officials, resource professionals, and landowners of the increasing weed presence of an invasive weed, sericea lespedeza (*Lespedeza cuneata*), in southeast Nebraska grasslands. Several counties in the area have begun the process of controlling this species, most notably with the formation of the Five Rivers Weed Management Area. Early efforts have focused on training landowners and officials to identify the plant and setting up field demonstration plots.



mdc.mo.gov

However, at some events held at demonstration plots there have been some mixed messages presented. A presenter at a recent event repeatedly compared sericea to alfalfa. Another said “If you set out to design the perfect forage plant, sericea would be it, except for the high tannin levels it develops.” So which is it? Is sericea lespedeza a nasty weed or a misunderstood forage plant?

Unfortunately, the answer is that it's a nasty weed. It is a state-listed noxious weed in Kansas and is moving that direction here in Nebraska. The high tannin levels of sericea make it nearly worthless as a forage plant for most of the year. Because it's not palatable to cattle after the early spring, sericea increases in abundance under grazing. Sericea can outcompete warm-season grasses for both light and water, so it slowly converts native pastures to lower-quality species like Kentucky bluegrass and, of course, sericea lespedeza.

There are a number of successful control strategies that can be effective on sericea lespedeza, but repeated treatments are the key because a single treatment will not remove it from a pasture. The effort is worth it, especially in Nebraska because the plant is not yet widely established. Oklahoma and Kansas have hundreds of thousands of infested acres, but Nebraska has a legitimate opportunity to eradicate sericea because it is limited to relatively few locations. Eradication will require concentrated efforts at control and a conscious effort to avoid spreading the plant from site to site – e.g. cleaning equipment after leaving a site with sericea and avoiding moving infested hay from site to site. It won't be easy, but a truly cooperative effort from landowners, government agencies, and conservation groups has an excellent chance of success.

For more information go to www.mdc.mo.gov/landown/grass/sericea

Scary-Looking but Harmless Plants – by Chris Helzer

A common definition of a weed is “a plant out of place”, but that doesn't really go far enough. If a plant is not necessarily where you want it, or looks “ugly”, does that mean it requires your time and attention? Not necessarily. While some plants can outcompete and even eliminate “good” plants, other plants just come and go over time based on temporary conditions. The plants in that second category could be called “opportunistic” plants because they're just taking advantage of a situation where they can get a short-term competitive edge. Typically, with a change in weather (a wetter or drier season) or a tweak in management, those opportunistic plants lose out to stronger competition from perennial grasses and other stronger plants.

A few examples of opportunistic plants that can look scary but rarely need serious attention are:

- ironweed
- ragweed (western, common, and giant)
- verbena (hoary or woolly vervain)
- annual grasses (foxtails, foxtail barley, and annual brome species aka wild oats)

All of these plants can erupt in population size under certain conditions, but patience and some minor changes in management are generally all that is required to control them. On many of the sites that I help manage for The Nature Conservancy we're using patch-burn grazing and other similar systems that include very intense grazing followed by long rest periods. Those grazing systems give us first-hand experience watching opportunistic plants come and go. When the dominant grasses in a pasture are grazed intensely, they lose root mass, making space for new plants to move in. The plants that move in first are typically the opportunistic plants on the above list – and others. Their seeds are often in the soil waiting for a chance to germinate, and the removal the leaves from surrounding plants gives them both the light and below-ground moisture they need.

However, once the grazing period is over and the grasses get a rest period to recover, they start re-building that root mass. The length of recovery time depends upon soil moisture and the extent to which the plants were stressed. Long periods of intense grazing and dry weather during the subsequent rest period make for a slower recovery. They do recover, though, and as they do, the opportunistic plants slowly fade away. What often happens is that the opportunistic plants hold on for their lifespan, but fail in their efforts to reproduce because of the increasing competition from surrounding plants. In these cases, annual plants, (foxtails, foxtail barley, wild oats, common and giant ragweed, and many others) disappear first because they only live for a single season anyway. They get a single season to grow and flower, but once they die, the seeds of the next generation either fail to germinate, or germinate but quickly wither under the competition from perennial plants. Plants with longer lifespans like ironweed, verbena, western ragweed, and others, may hold on for a couple years or even a little longer before they disappear, but eventually they too lose out and have to wait for the next event that provides them a chance to flourish. Again, wetter weather speeds the recovery of perennial grasses and the rate of disappearance for opportunistic plants.

In cases where opportunistic plants appear every year and don't seem to fade away, you can usually determine the cause. Areas around windmills, mineral feeders, shade trees, etc. are obvious places where cattle concentrate and where perennial grasses rarely get a chance to maintain their dominance. In those areas opportunistic plants rule because there is always open root space and abundant light for seed germination and establishment. In other cases, low areas that flood periodically, or sandy/gravelly areas that are prone to drought conditions can be difficult places for perennial grasses – and good sites for opportunistic plants. Even high nutrient inputs from run-off from nearby fields can change the competitive balance toward some “weedy” species.

If you can determine the reason opportunistic plants show up on your land, you can usually find ways to limit them, or at least stop worrying about whether you should control them or not. Apart from tweaking management away from conditions that favor them, control efforts aimed at opportunistic plants are rarely successful. Perennial grasses can easily re-gain the ground if they have adequate soil moisture and a chance to grow leaves and roots. Killing short-lived plants that are just filling open space doesn't bring back the perennial grasses any faster – it just re-opens the same spaces for more opportunistic plants to fill again.

If it makes you feel better, just think about all the benefits of those opportunistic plants while you're waiting for them to go away. Ironweed and verbena are two of the most important plants to pollinating insects, and ragweeds are premier food and habitat plants for quail. I'm not sure there's anything good about wild oats, but I could be wrong... Anyway, don't worry about them – there are too many other things to worry about to waste your time on plants that don't really hurt anything.

Thistles – by Chris Helzer

I bet you didn't know that there are 10 different thistle species in Nebraska. I'll also bet you didn't know that half of those species are native to the state and are beneficial plants for a number of wildlife and insect species. In eastern Nebraska there are three species of thistles that are native. They include two perennial plant species, Flodman's thistle and wavy-leaf thistle, and the biennial tall thistle. All three native species can be easily separated from their non-native relatives by simply looking at the bottom side of their leaves. If the bottom of the leaf is bright white (because of tiny little hairs), the thistle is a native species.

Among the non-native thistles present in eastern Nebraska, musk, Canada, and plumeless thistles are noxious weeds that we're all required to control, and bull thistle is a non-native species that can be problematic in some places. Controlling these species can be time consuming and expensive enough without also trying to attack more species of thistles that are native and don't generally cause problems. Native thistles may be spiny and arguably unattractive, but they are also important parts of grassland ecosystems. They are extremely important pollen and nectar sources for pollinators and provide large nutritious seeds for a variety of wildlife species. American goldfinches even nest much later in the growing season than most other birds for the primary purpose of timing the birth of their young with the availability of tall thistle seeds. So – along with all of the opportunistic plants listed in the above article, you can add native thistles to your list of plants to ignore (or even appreciate!) as you go after the real weed problems on your land.



Flodman's thistle



Woolly vervain



Foxtail barley--photos by Chris Helzer

Personnel Changes at Tallgrass Prairie Partnership Office in Beatrice

The Tallgrass Prairie Partnership in Beatrice hired Nate Walker in June to assist with private lands habitat projects and other prairie conservation work. Nate is from Wisconsin where he worked on 60,000 acres of wildlife areas. He spent a lot of time working on landscape-scale wildlife habitat work that have given him many experiences that make him well suited for the job. Nate is looking forward to learning more about southeast Nebraska and meeting all of the great land stewards in the area. This adds a new position to the office, bringing the total to three.

While we are glad to welcome Nate to the world of prairie conservation in Southeast Nebraska, we are sad to say goodbye to Jarren Kuipers, who is moving to Wyoming. Jarren's wife got an excellent position with the University of Wyoming in Cody. Northern Prairies Land Trust plans to fill his position this fall. Jarren wrote the following note for this newsletter:

Hello all,

It is with both regret and excitement that I will be leaving southeast Nebraska this July for northwest Wyoming. Most of my regret is for leaving the many sincere and passionate people that I have gotten to work with over the last five years, most particularly the landowners of Jefferson, Gage, Pawnee, and Johnson counties and the staff of NPLT, NGPC, TNC, SCPAC, and others. My excitement on the other hand is not just in seeing a new place or tackling new challenges. I am excited for those things that are yet to be accomplished here in Southeast Nebraska though this collaborative effort called the Southeast Flagship Initiative. There is much to be accomplished through collaboration and finding common ground. That common ground most certainly includes a desire to protect and enhance the remaining diverse native plant and animal communities for the benefit of future generations and train the next generation of land stewards. I believe these things can and will be accomplished, and that is exciting.

Thank you for your encouragement and support over the years. God bless.

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