

Winter Walk 1

Winter Botany

Trees And Grasses In Winter

It might seem like an odd time to go out looking for vegetation, but winter is a time when Somme Prairie Grove shows its structure with stark clarity.

First note the shapes of the trees. Vestal Grove is the only area with old trees. In the 1938 aerial photo, **scattered old oaks** are clearly visible in a band along Dundee Road and along Waukegan south of the pond. There were few other trees anywhere on the site at that time. These old trees stand out today because of their stout, spreading lower limbs. Typical younger trees in these woods are ‘**pole trees**.’ These slender, straight trees with few or no lower limbs are typical of eastern maple-basswood forests but a sign of degradation in an oak woodland or savanna.

Two principal species of Somme Prairie Grove oaks are distinguished instantly this time of year by their leaves. **Bur oak** leaves have fallen, and the **dark heavy branches** are bare. Notice the very thick, very deeply furrowed bark of the bur oak – a feature that protects this species from fire and makes it the ‘front-line soldier’ tree that stands out in the grassland. **Scarlet oak** holds its sharp-pointed leaves all winter; their **rich brown foliage** often harbors roosting birds during storms. Mixed with the bur and scarlet oaks are occasional **shagbark hickories** – recognizable by bark that peels off in thick, persistent strips.

Paler leaves with rounded lobes still hang on the **white oak** – which is also distinguished by its light flaky bark. Groves of white oak are near the north and west edges of the preserve.

Periods with no snow on the ground are a good time to study the structure of the grassland too. It’s obvious in winter that the main fuel species are the big grasses. Commonest here is **Indian grass** – pale yellow in winter, some seeds still clinging to the thin, straight tops of the stems. A larger and coarser grass, **big bluestem** has blunt-ended stems in winter and a darker and redder color. **Little bluestem** can be recognized by its thigh-high cylindrical clumps. And the easiest to recognize species is **prairie dropseed** with its dense, low, spreading clumps of fine golden leaves.

Messages From The Stark Winter Plantscape

Almost all the old oaks are **bur oaks**. They were the major tree species here on the slope with open prairie to the west. Their massive spreading limbs are now clearly visible – with no leaves on the invader trees. In some areas, after decades of restoration work, most invader trees (ash, box elder, cherry, maple, basswood and buckthorn) have been cut away from the oaks – but it’s still generally too shady for either young oak reproduction or for survival of lower branches. Instead ‘**pole trees**’ fill all the spaces. It’s also still too shady for the bur oak understory species like **hazelnut, plum, sumac, New Jersey tea, and Iowa crab apple**. Since the more obvious invading species have been thinned away, the current pole trees are mostly fine upland oak woods trees – bitternut and shagbark hickory, red and scarlet oak. These species are not naturally so numerous in the bur oak woodland and savanna; their dense presence here reflects many decades without fire.

Tallgrass savanna and woodland are now of high conservation priority in North America. The rare species of insects, fungi and other significant species (above and below the surface of the soil) are most likely to be surviving in areas that have always had open oaks. Of course, no one knows for sure, since most of the rare micro-organisms have been little or not-at-all studied. Places like Somme Prairie Grove may be important sites for such studies.

In a few areas, thinning or wind damage has opened up the canopy considerably. It will be interesting to watch these areas over the years. But for now, almost all of the bur oak reproduction is out on the edges of the groves or in the more open grassland. Note that some young trees and shrubs are protected by cages until they're tall enough to escape deer browsing.

Some of the grassland areas are diverse; others have few species (for example, check out the high ground north of the slope where the west side of the inner loop trail crosses the central swale). This area was never seeded. **Big bluestem** has covered it to the exclusion of most other species. This area will probably become diverse in time, but it may take decades or longer.

In contrast, look at the slope south of this area (and north of the central swale); it is one of the many areas that are botanically rich from restoration. Note the many species of dried grasses and wildflowers. **Prairie dropseed** is one of the grasses most indicative of high quality mesic prairie and least likely to survive overgrazing and other stresses (others such grasses here include Leiberg's panic grass and Junegrass – both small and harder to find in winter).

Another diverse area is the knob along the eastern part of the Inner Loop just north of where it emerges from scarlet oaks after crossing the Central Swale. It's interesting to watch how the prairie grass interacts with the trees. At this point, not much tall grass grows under the trees. This is likely to change in some areas. And in those, the thin-barked scarlet oaks may be top-killed by fire from time to time. **Scarlet oak** is often a resprout tree. Some people have hypothesized that one advantage of this species' persistent leaves is that they could be fuel to burn off taller trees that are less adapted to living in a dynamic resprout ecosystem.