

# eNEWSLETTER



An informational e-newsletter for the friends of the Douglas County Wildlife Management Area

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## Plant & Animal Communities of the DCWMA

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The Douglas County Wildlife Management Area (DCWMA) lies in the area known as the Northwest Sands Ecological Landscape, commonly known as the "pine barrens". The term "barrens" often misrepresents the true value of this unique landscape. Historic composition of the plant and animal communities prior to European settlement is based mostly on Federal Land Surveys notes and early newspaper stories. These notes and stories provide a snapshot in time of what the landscape looked like, but do not take into account the elastic nature of this landscape.

In reality, the area known as the pine barrens was a changing mosaic of pine forest, shrublands, and grasslands that were molded by recurring fires. The plants and the animals that depend on them were not only adapted to the dry sandy soils, but are often dependent on fire to maintain their health and abundance. The term "barrens" was attributed to the area only after European settlers tried to clear the land and raise agricultural crops, only to find the area could not support agriculture well enough to feed their families. The area would be more appropriately termed "savanna", as it is rich in plant and animal life dominated by grasses and herbaceous undergrowth within patches of shrubs and trees of various sizes and densities. These plant communities are home to 140 species of birds, 39 species of mammals, and 31 species of reptiles and amphibians.

The fires that drove the cycle of forests to grasslands and back to forests were either of natural origin such as lightning strikes or intentionally set by the native peoples. Native people recognized that desirable plant and

animal communities responded favorably to fire, especially berry producing shrubs like blueberries and game such as deer and elk.

Most plants found here are adapted to the dry, infertile soils and recurring fire by having deep or dense root systems. These root systems can reach sub-surface moisture and nutrients as well as store most of their energy below ground level to allow fast regrowth after a disturbance such as fire. Other plants store their energy in ground or in the form of heat resistant seed, such as jack pine. Most of these plants require full sun and some may even promote fire to maintain their own species, such as big and little bluestem grass and oaks retaining their leaves, both of which become highly flammable fuels after the summer growth period. Several tree species such as red pine, white pine and oak have developed thick bark to resist fire damage.

In addition to the upland communities, numerous wetlands were formed by depressions left in the landscape by the last glaciation. These depressional wetlands range from moist sedge meadows to small seepage lakes. Together, these upland and wetland plant and communities can be grouped into four basic assemblages: grasslands, shrublands, forest lands, and wetlands.

The wildflowers found in grassland community resemble that of a true prairie, but is missing those species that require deep-nutrient rich soils. Starting nearly as early as the crocuses in our yard there will be pasque flowers blooming on DCWMA. Pasque flowers are followed by birdsfoot violet and hoary puccoon in mid-late spring. New jersey tea, wild

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bergamot and wood lily take over during mid-summer. Wild bergamot is closely related to the cultivated version called "bee balm" and is every bit as attractive to insects and butterflies. The orange wood lily's stark orange color can be seen at great distances in the open grassy areas where it thrives. As summer fades into fall milkweeds, blazing star and sunflowers put on a show that lasts into October. Milkweeds are well known for their value to monarch butterflies, but their nectar is equally attractive to most varieties of nectar feeding insects. Blazing star and sunflower seeds are highly sought after by songbirds. Four species of sunflower can be found, ranging from the diminutive western sunflower found along disturbed roadsides and trails to the 6-foot tall saw-tooth sunflower found in moister areas. Showy sunflower is found in open, recently disturbed areas whereas the woodland sunflower thrives in semi-shaded areas near trees and shrubs.

Open grasslands provide optimal habitat for pocket gophers and thirteen-lined ground squirrels, which along with abundant ground dwelling insects, provides the best habitat in Wisconsin for our state symbol, the badger. Red fox and coyotes also prefer open areas for hunting and resting. Bird species most often found in the open grassland are upland sandpipers, bluebirds, northern harrier, rough-legged hawks, short-eared owls, vesper sparrows, and sharptailed grouse. Other animals found here include toads, smooth green snakes, hog-nosed snakes, and northern prairie skinks. Skinks and toads may be rarely seen as they live much of their lives underground, often in the soft soil of recent gopher diggings. Hog-nosed snakes feed primarily on small mammals and amphibians, especially high on their food preference are toads. Winter visitors include horned larks, snow buntings, and snowy owls.

The shrub communities here are primarily low lying shrubs such as blueberry, sweetfern, bearberry, roses, and new jersey tea. Taller shrubs include American hazelnut, prairie willow, and several varieties of juneberry.

Rose hips are a nutritious winter food for birds such as sharp-tailed grouse. Sweetfern not only has a very pungent odor, but also has the ability to use mild toxins released from their roots to inhibit growth of competing plants. Hazelnuts and juneberries are excellent foods for black bear, blue jays, squirrels and chipmunks. Other species that inhabit these shrublands are gray fox, brown thrasher, gray catbird, cope's gray treefrog, woodcock, and least chipmunk.

Jack pine, red pine, oaks, white pine and aspen dominate the forest areas. This area is used by northern flying squirrels, pine squirrels (a.k.a. red squirrels), gray squirrels, fisher, eastern gray treefrogs, ruffed grouse, saw-whet owls, barred owls, broad-winged hawks, and bears. Winter visitors to the area include red polls, red crossbills and pine grosbeaks. While deer and wolves spend most of their time on forested areas during the day, they utilize other habitats equally as well during twilight and darkness.

The wetlands are critical to maintaining most of the amphibians and several reptile species. Seasonal wetlands are critical to blue-spotted salamanders, cope's and eastern gray tree frogs for breeding habitats, whereas green frogs, toads, tiger salamanders, painted turtles, and blandings turtles requires more permanent wetlands such as the seepage lakes. Birds such as spotted sandpipers, great-blue herons, Canada geese, mallards, and sora rails can be found in most wetlands. Mammals such as beaver, otter, muskrat and mink are also dependent on wetlands.

