

# A pocket prairie guide. [Supplement, Vol. 18, No. 4] [August 1994]

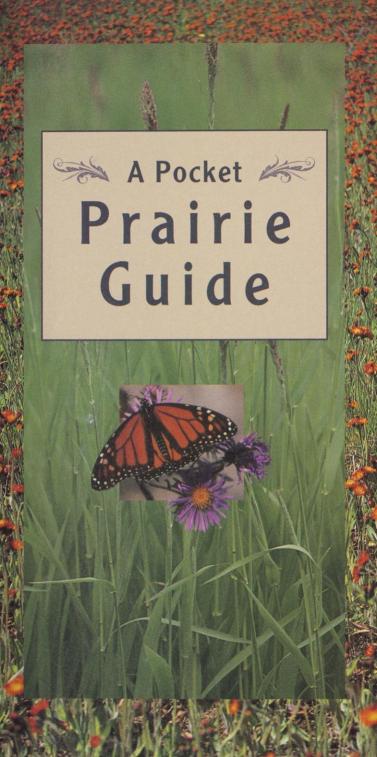
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## Prairies



#### Almost gone; never forgotten

magine great expanses of tall grass flowing into broad fields dotted with oaks and dappled with wildflowers. These were Wisconsin's prairies, in the drier, warmer southern and southwestern regions. To the north and east lay the forest; yet to come was the settler's plow.

When European settlement did come in the 1830s, it so altered the prairie landscape that within a few decades the

tales told of grasses higher than a horse's eve seemed to be just that — tales, not truth.

Today only scattered remnants of tallgrass prairie and oak savanna remain in Wisconsin. What's left is well worth your attention, for within those remaining acres lie a story of natural history unlike any other.

Plan to visit a Wisconsin prairie soon. A listing of prairie sites begins on page 12.

A prairie in bloom.



#### Not all prairies are alike

Il prairies are mostly grass, with few or no trees. But not all prairies are alike. Moisture and soil type determine the mixture of species that make up a prairie community.

Wet

Lots of water, deep

clay silt loam or

peat soil, poor drainage

Wisconsin's prairies fall into three basic types. Combinations exist where two different types meet.

Purple Coneflower

#### Little Dry Bluestem

Little water, dry shallow soil over sand or limestone. Dry prairies on steep slopes are also called "goat prairies."

Cup Plant

Big Bluestem

#### Mesic

Some water, medium-deep silt or sandy loam soil, good drainage

Marsh Milkweed

Switchgrass

**Approximate** acres of prairie/savanna in Wisconsin

1830 - 7,500,000

1994 - 13,500



## Prairie plants #



ry and windy—
that's prairie weather. When the
Rocky Mountains began
to rise 30 million years
ago, the moisture from
the humid western
winds could no
longer reach North
America's interior.
Most trees couldn't
grow well, but certain grasses and flowers adapted to the

drier, hotter climate.

Leaves of prairie plants
tend to be long and narrow, to prevent overheating. Some plants
have divided leaves, or
broad leaves held
stiffly upright, to
expose less surface to
the sun. Fleshy, hairy
leaves and sticky sap
help hold in moisture.

Prairie Dock



Needlegrass

#### The Grasses

Grasses grow from the base of the stem, not the tip.

Sedges are grass-like plants

with triangular stems that are frequently found in wet prairies called sedge meadows.

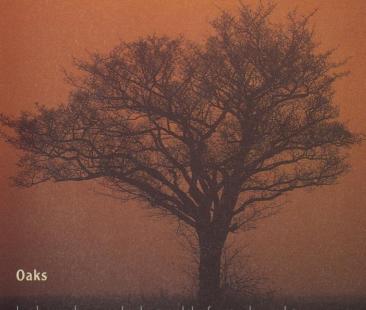
#### The Forbs

Prairie wildflowers are called forbs. Their colorful blooms attract bees, butterflies and other pollinating insects. To get enough sunlight, forbs tend to match the height of the grasses: Look for low-growing forbs in the spring, when grasses are still short. Summer and fall forbs are much taller.



Purple Coneflower

SCOTT NEILSEN



In places where grasslands neared the forest edge, oak trees spread out across the prairie. Settlers called these parklike grasslands "oak openings"; today they are known as oak savannas.

A prairie oak's shade creates a microclimate underneath its boughs, allowing prairie plant species with broader leaves to thrive in the cooler, more even temperatures and moister soils.



### Roots and fire



hen you look at a prairie above ground, you're only seeing a third of what's there.

Most prairie plants have about

burns the dried, dead tops of the plants without damaging the roots and clears the surface of litter. After a spring fire, the soil warms up faster and more

rain reaches the soil, so shoots begin to grow sooner.

Nutrients, includ-



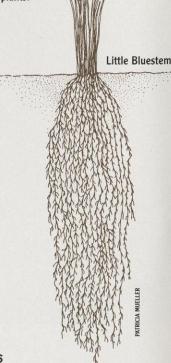
Fire doesn't harm the roots of prairie plants.

two-thirds of their mass below ground in deep roots and rootstocks, which produce buds for the next year's growth.

Most prairie species are perennials — the tops die back in winter, but the rootstocks survive and sprout again in spring.

Fire renews a prairie.
Without it, invading trees
and shrubs gradually turn
grasslands into woodlands
— the fate of many of Wisconsin's oak savannas.

A hot, quick prairie fire





Big Bluestem one week after a fire.

ing potash, phosphorus and calcium, leach into the soil as rain falls on the ash. Fire thins out grasses, but favors plants like prairie clover and leadplant that fix nitrogen in the soil.

Bur oaks, with their thick, corky bark, are the only trees consistently capable of withstanding prairie fires.

Leadplant



## Prairie residents



ison, the prairie's most famous inhabitants, no longer roam wild across Wisconsin's grasslands as they did before the 1830s. The transformation of prairies to farmland eliminated bison habitat: hunting nearly eliminated the species.

Smaller prairie mammals requiring less space do thrive and harvest mice, moles, shrews and prairie voles.

Thirteen-lined ground squirrels and pocket gophers dig long, narrow prairie burrows. Cottontail rabbits can be spotted in prairies, along with red foxes, weasels, skunks, and less frequently, coyotes and badgers.

Ornate box turtles are among the most ancient of Wisconsin's prairie species. This endangered reptile needs loose sand on dry prairies or savannas to dig nest holes in late spring and deep hibernation burrows in fall.

Other reptiles found on dry prairies include the sixlined racerunner, timber rattlesnake, blue racer, milk snake and bullsnake

On mesic prairies, look for blue racers, bullsnakes, green snakes and the garter snakes.

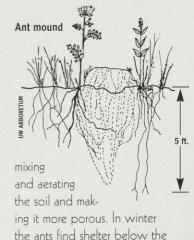


Garter snake

Newts, tiger salamanders, toads, painted turtles and hognose snakes can be found on wet prairies.

In sedge meadows, listen for the leopard frog and the Western chorus frog; look for green snakes and eastern garter snakes.

There's plenty of activity below ground in a prairie. Large colonies of mound-building ants tunnel several feet into the subsoil,



Ground squirrel

on grassland fragments. Starting with the smallest, look for prairie deer mice, meadow

frost line.



## On prairie wings



harp-eyed raptors scan broad prairie vistas in search of mice and other prey. Red-tailed and rough-legged hawks, northern harriers,

kestrels, and owls can be seen soaring above

Wisconsin's grasslands.

Other grassland species prefer the mid-range between sky and soil. Eastern meadowlarks, bobolinks, dickcissels, snow buntings, vesper sparrows, marsh wrens, red-winged blackbirds, bluebirds, goldfinches and horned larks perch on tall grasses, shrub branches, fence posts and wires.

On the ground, bobwhite

(left) Red-tailed hawk (below) Goldfinches

auail and pheasant nest in prairie grass.

In or near wet prairies, watch for sandhill cranes, blue-winged teal, and sandpipers.

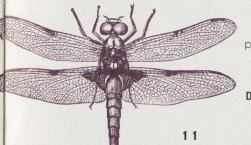
A prairie hums with insect life, from bumblebees and honeybees abuzz in search of wildflower nectar to the



Red-winged blackbird

chirping chorus of katydids, crickets and grasshoppers to the "zi-zip" of dragonflies and damselflies in flight. Swallowtails, monarchs, coppers, buckeyes, admirals and other but-

> terflies add colorful grace notes to the prairie landscape.



Dragonfly

10



## Ten Wisconsin prairies



isconsin's prairies are best seen on foot. Make a prairie tour Please stay on the paths and do not pick blossoms, dig plants or gather seed.



#### Indiangrass

especially enjoyable by carrying binoculars for birdwatching, a small hand lens for a closer look at plants and insects, and a camera or sketchpad to record what you see.

To really appreciate the complexity and character of a prairie, visit it at different times of the year. Prairies change as the seasons pass, with each week revealing new surprises.

Walking paths prevent trampling of prairie plants.

- 1. Curtis Prairie, University of Wisconsin Arboretum, Madison, Dane County. 60 acres. Oldest prairie restoration in the state (1936). Wet, mesic, dry prairie species. (608) 263-7888.
- 2. Greene Prairie, University of Wisconsin Arboretum, Madison, Dane County. 40 acres. Restoration began in 1943. Wet prairie, oak opening. (608) 263-7888.

3. Chiwaukee Prairie, Kenosha, Kenosha County. 105 acres. Wet prairie near Lake Michigan shore. Owned by The Nature Conservancy (608) 251-8140.

**4. Wehr Nature Center**, Franklin, Milwaukee County. 10 acres. Mesic prairie restoration. (414) 425-8550.

5. Newark Road Prairie, Beloit, Rock County. 22 acres. Wet mesic prairie. Owned by The Nature Conservancy. (608) 251-8140.

Owned by The Nature Conservancy. (608) 251-8140.

6. Spring Green Prairie, Spring Green, Sauk County. 260 acres.

Dry prairie.

Owned by The Nature Conservancy. (608) 251-8140.

7. Avoca River Bottom Prairie.

Avoca, Iowa County 320 acres. Largest virgin prairie east of the Mississippi River. Managed by the Department of Natural Resources.
(608) 935-3368.

8. Crex Meadows, Grantsburg, Burnett County. 79 acres. Sand prairie. Managed by the Department of Natural Resources. (715) 463-2899.

**9. Brady's Bluff Prairie**, Perrot State Park. 4 acres. Goat prairie on bluff rising 460 feet above the Mississippi River. (608) 534-6409.

10. Quincy Bluff Preserve, White Creek, Adams County.
2,000 acres. Sedge meadows, oak groves. Managed by The Nature Conservancy and the Department of Natural Resources.
(715) 421-7800.

Bluebird



## Highway prairies



or decades, the Wisconsin Department of Transportation carefully left some roadsides unmowed to allow native plants to regenerate. In the 1980s, the agency adopted a policy

Besides fostering natural regeneration, DOT has been planting native species for many years. From small projects done in cooperation with local garden clubs to large landscape plantings, DOT has

planted thousands of native trees and shrubs and hundreds of pounds of native wildflowers and grasses.

The agency also conducts an inventory of roadside vegetation along state highways to identify remnants of native plant communities.

For a list of roadside prairies, write the Wisconsin

DOT Highway Maintenance Section at P.O. Box 7916, Madison, WI 53707-7916.



Prairie Smoke

of mowing only between mid-July and the end of August to avoid disturbing the nesting habitat of many wildlife species.



#### **Dane County**

- · Highway 12 (South Beltline), Madison
- · Highway 19, Sun Prairie to Waunakee

#### La Crosse County

- Tourist Information Center #31, I-90
- Highway 157/I-90 Interchange

#### Marquette County

- ·Rest Area #81, Highway 51
- · Endeavor exit, Highway 51, one mile north to D

#### Milwaukee County

- · Hale Interchange, east end, I-894
- · Zoo Interchange, I-94 and I-894
- South County Line, I-94
   median

#### **Rock County**

- · Highway 11 Interchange, I-90
- · I-90 median, half-mile north of County M

#### St. Croix County

· Highway 35 Interchange, I-94

#### Walworth County

· Rest Area #24, Highway 12

#### Waukesha County

· Highway 16, Oconomowoc-Pewaukee Rd

#### Waushara County

· Highway 51

#### Winnebago County

· Highway 41/PP Interchange



## Prairie seasons



#### Spring

Pasque flowers bloom through late snows; green shoots of junegrass and needlegrass begin poking through the previous year's litter. Violets, prairie smoke, phlox and shooting stars are among the early arrivals.

#### Summer

Orange butterflyweed, purple prairie clover, yellow coneflower and blackeyed susans color the prairie palette. Little bluestem, indiangrass and switchgrass wave across the landscape.

#### Fall

Asters and blazing star,
goldenrod and bottle
gentians present the
year's final show.
Big bluestem towers above all.
Most flowers
fade and die
after early
frosts, and the
once-green grasses
turn bronze, tan
and gold.

**Bottle Gentian** 



A winter prairie.

#### Winter

Above ground, the dead stalks and seedheads provide cover and food for small mammals and birds. Roots and rhizomes of prairie forbs and grasses rest below the surface, ready to thrive again when warmth and moisture return in spring.

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