

A Tour of Missouri's Native Grassland Natural Communities



Serving nature and you

Diamond Grove Prairie Natural Area

Hallmarks of a Natural Community



Ecological Processes



Habitat Specialist Species



Coreopsis bee
(*Melissodes coreopsis*)

© Laurence Packer

Complexity of Life Forms and their Interactions



Habitat Generalists vs Specialists



Common Ragweed
Regal fritillary



Prairie
Massasauga



Downy
Gentian



Grass Pink Orchid
(*Calopogon
oklahomensis*)



Northern
Crawfish Frog

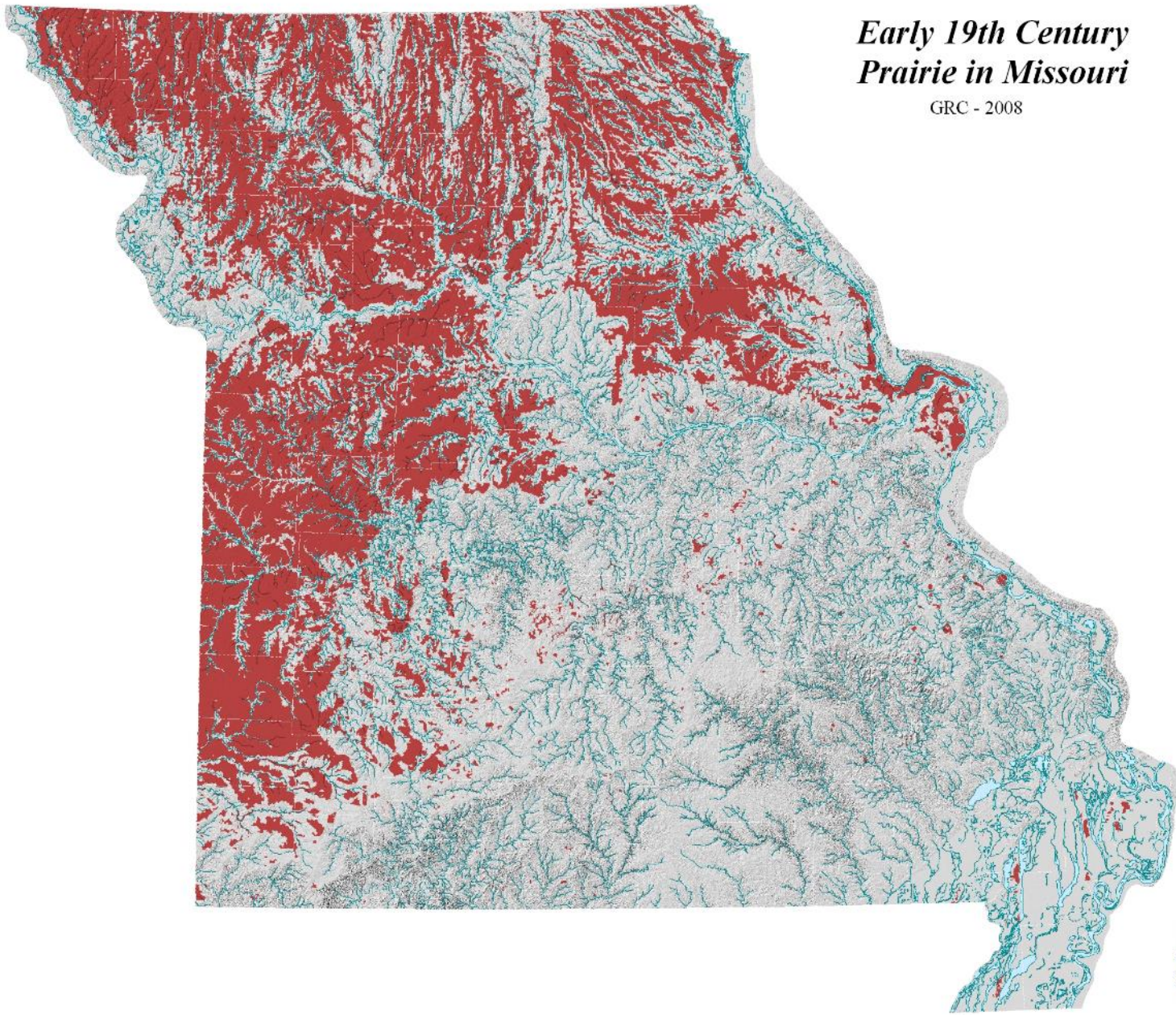


Red-winged Blackbird
Rattlesnake
Borer Moth,
Papaipema eryngii

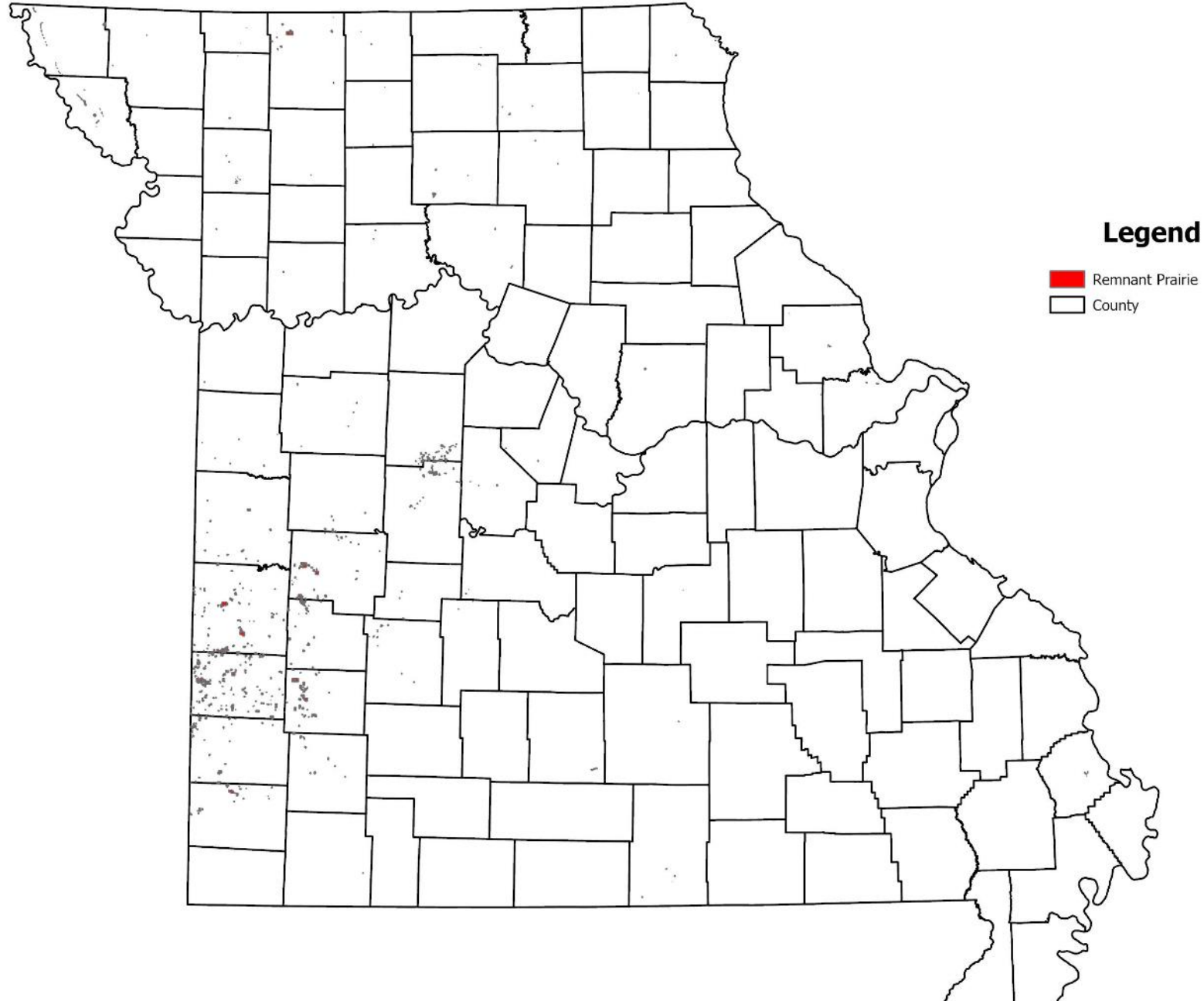
Striped Skunk

*Early 19th Century
Prairie in Missouri*

GRC - 2008

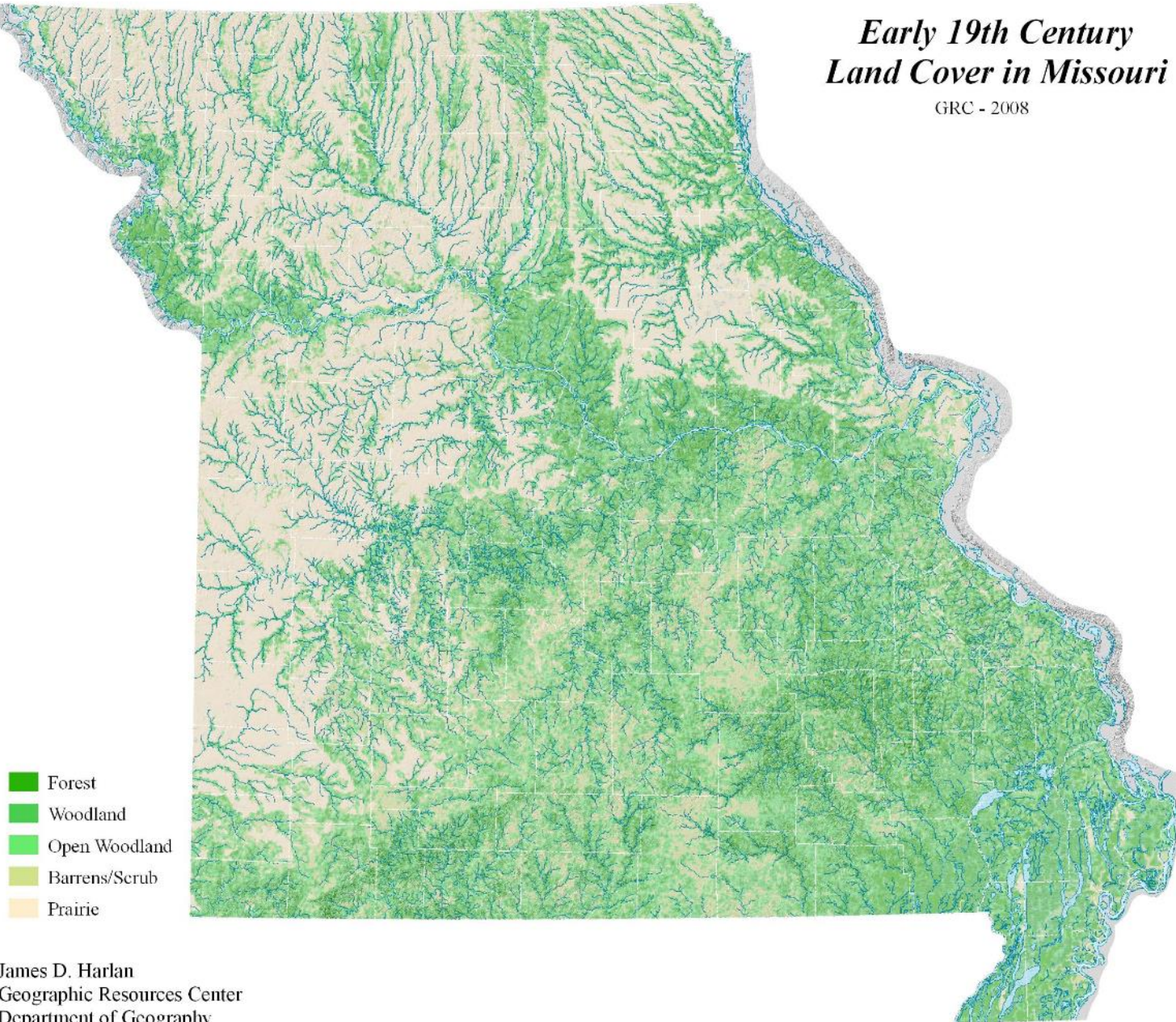


Missouri Remnant Prairie



Early 19th Century Land Cover in Missouri

GRC - 2008



- Forest
- Woodland
- Open Woodland
- Barrens/Scrub
- Prairie

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Golden Prairie Natural Area, Missouri Prairie Foundation



Osage Indian, 1834,
painting by George Catlin

12 Prairie Natural Communities

Dry Loess/Glacial Till Prairie

Dry-Mesic Loess/Glacial Till Prairie

Mesic Loess/Glacial Till Prairie

Dry Limestone/Dolomite Prairie

Dry-Mesic Limestone/Dolomite Prairie

Dry-Mesic Chert Prairie

Dry-Mesic Sandstone/Shale Prairie

Sand Prairie

Prairie Swale

Hardpan Prairie

Wet-Mesic Bottomland Prairie

Wet Bottomland Prairie



Soil Moisture Regimes

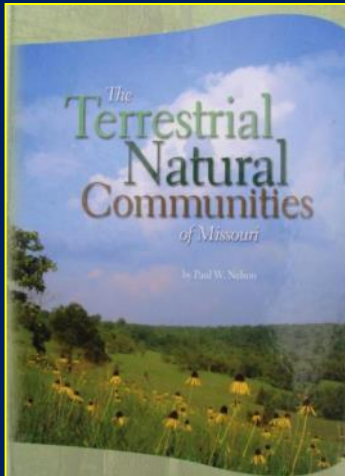
Dry – excessively to somewhat excessively drained.

Dry-mesic – water drains from the soil readily but not rapidly

Mesic – moderately well drained soils that typically are very fertile.

Wet-mesic – somewhat poorly drained; the soil is seasonally wet at a shallow depth for significant periods of the year.

Wet – poorly drained soils that formed in floodplains and are saturated at shallow depths for extensive portions of the growing season.



prairie swale

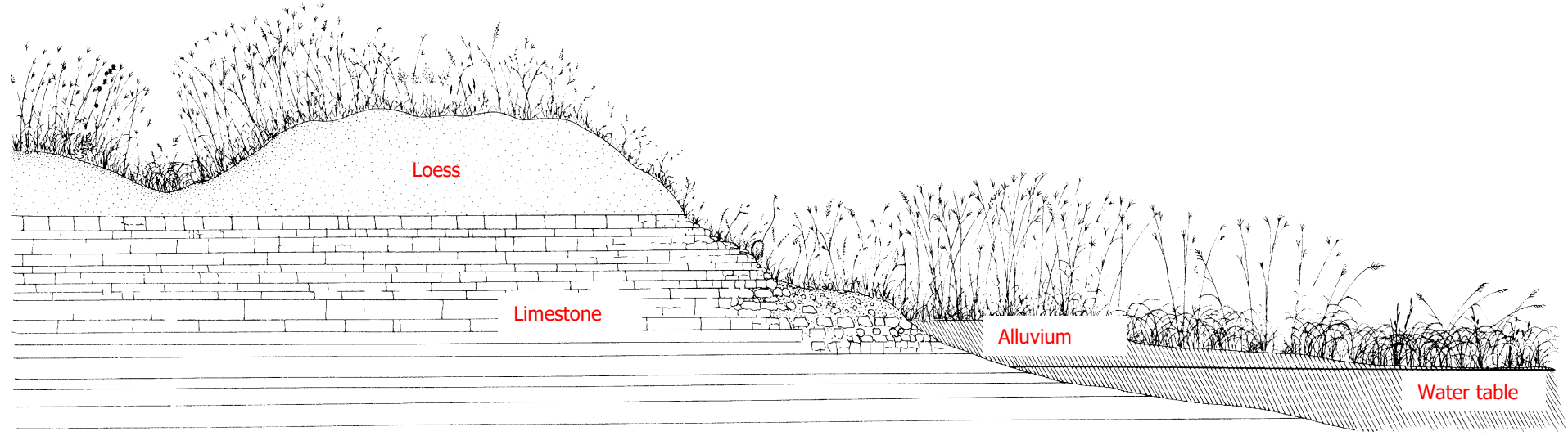
mesic loess/
glacial till prairie

dry-mesic loess/
glacial till prairie

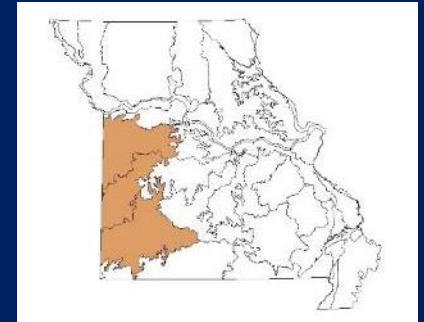
dry-mesic limestone/
dolomite prairie

wet-mesic
bottomland prairie

wet bottomland
prairie



Dry-mesic sandstone/shale prairie



Golden Prairie Natural Area, Barton Co.

Indian Grass (*Sorghastrum nutans*)



Prairie Dropseed
(*Sporobolus heterolepis*)



Big Bluestem (*Andropogon gerardii*)



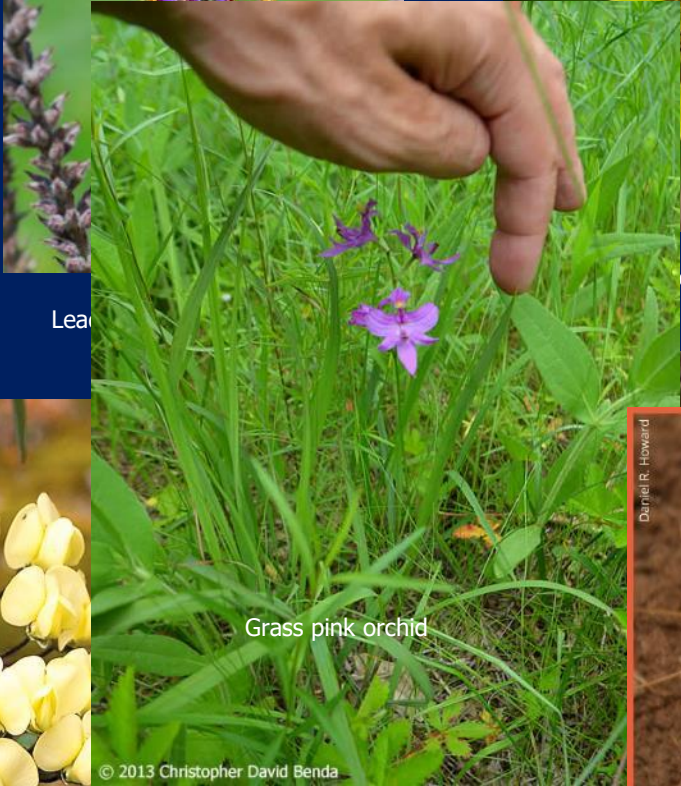
Little Bluestem (*Schizachryium scoparium*)



Switchgrass (*Panicum virgatum*)



Southern prairie aster



Lea

Grass pink orchid

© 2013 Christopher David Benda

osinweed

Prairie blazing star



Cream wild indigo



Prairie mole cricket



Sky blue aster



Phyllobrotica physostegiae,
a leaf beetle



Narrow-leaved false dragonhead (*Physostegia
angustifolia*)



Bullsnake

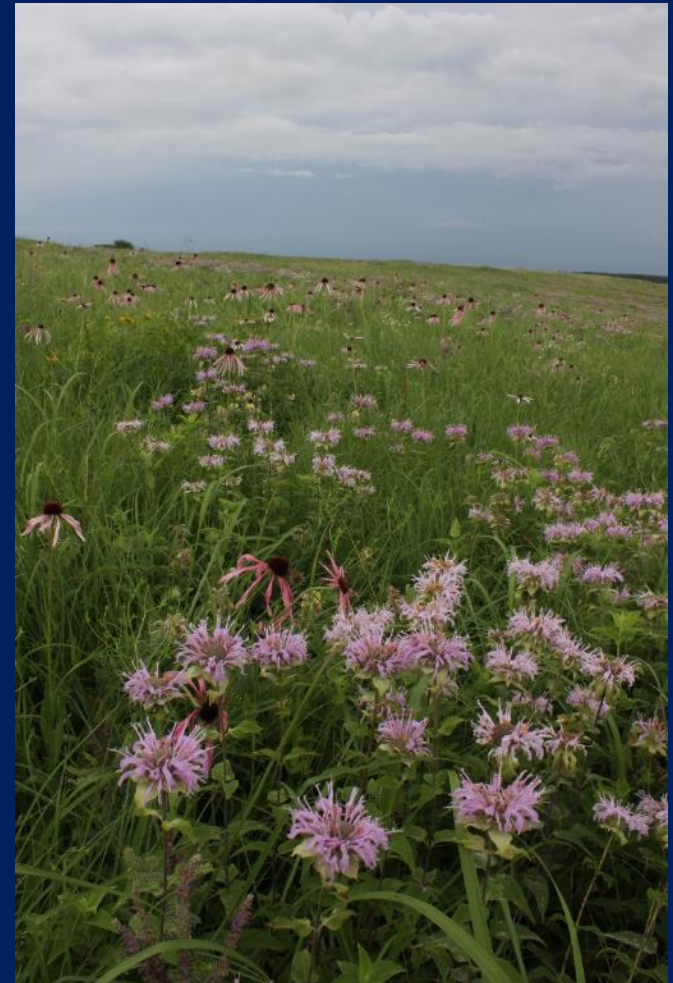
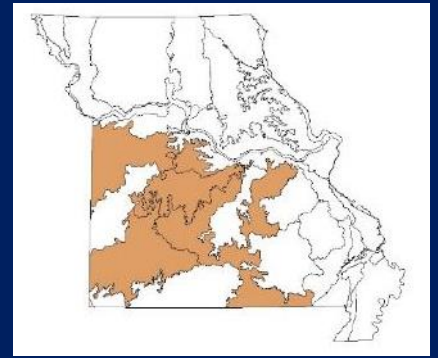


Plains box turtle



Southern prairie skink, ©
S.L. Collins, CNAH

Dry-mesic chert prairie



Linden's Prairie Natural Area, Missouri
Prairie Foundation, Lawrence Co.

Dry-mesic limestone/dolomite prairie



La Petite Gemme Prairie Natural
Area, Polk Co.

Hardpan (claypan) prairie

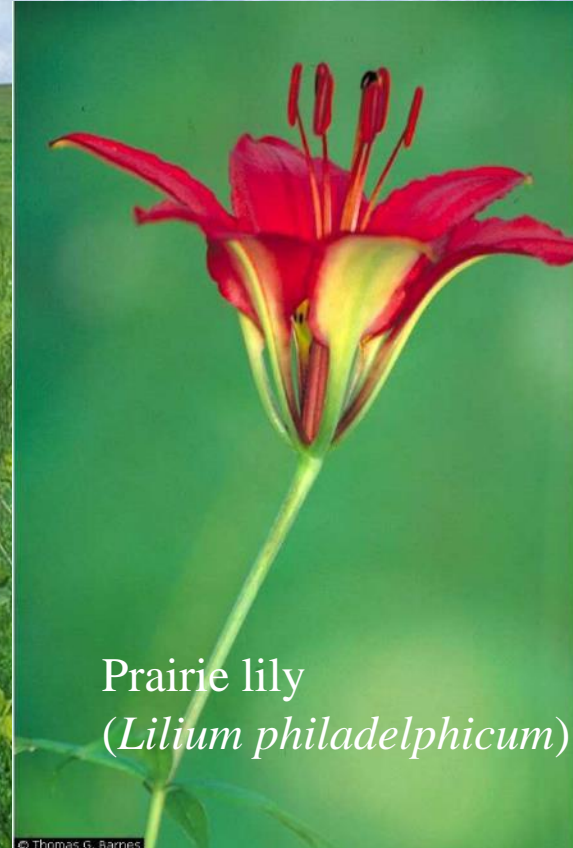


Tucker Prairie Natural Area, Callaway Co.

Dry-mesic loess/glacial till prairie



prairie cinquefoil (*Drymocallis arguta*)

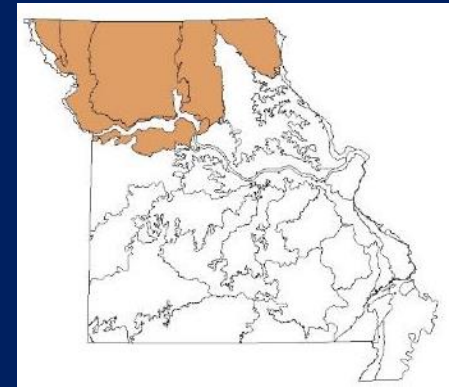


Prairie lily
(*Lilium philadelphicum*)

© Thomas G. Barnes

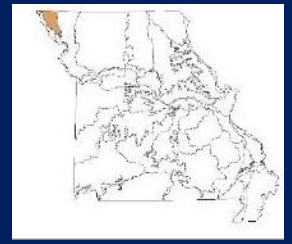
Pawnee Prairie Natural Area, MDC, Harrison Co.

Mesic loess/glacial till prairie



Western prairie fringed
orchid (*Platanthera praeclara*)

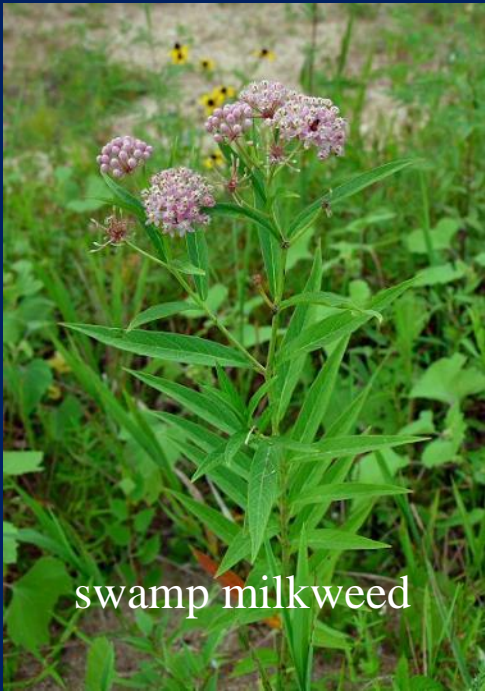
Dry loess/glacial till prairie



Star School Hill Prairie Natural Area, MDC, Atchison Co.



Sullivant's milkweed



swamp milkweed



sawtooth sunflower



midland brown snake

Douglas Branch Conservation Area, Vernon Co.

Cord grass (*Spartina pectinata*)

Prairie swale



Golden Prairie Natural Area



Prairie View Farm
Natural Area, Vernon Co.

Sand prairie



Dusty hognose snake



Jointweed
(*Polygonella americana*)

dotted beebalm
(*Mondarda punctata*)

Dickcissel



Henslow's Sparrow



Eastern Meadowlark

Grasshopper Sparrow





Savannas



Chariton River Hills Natural Area, Macon County



Blue-winged Warbler by Don Brown

Open-Oak Woodland and Savanna Birds Central Hardwoods and Eastern Tallgrass Prairie Region



Open oak-woodlands and savannas are natural ecosystems that depend on disturbance, especially periodic drought and fire of varying frequency and intensity, to persist. These disturbances maintain an open canopy, which allows sunlight to reach the ground and allows a diverse array of prairie grasses, forbs, and shrubs to grow in the understory.

Central Hardwoods Joint Venture Priority Savanna Bird Species



Northern
Bobwhite



Red-headed
Woodpecker



Prairie
Warbler

Yellow-
breasted
Chat



Field
Sparrow

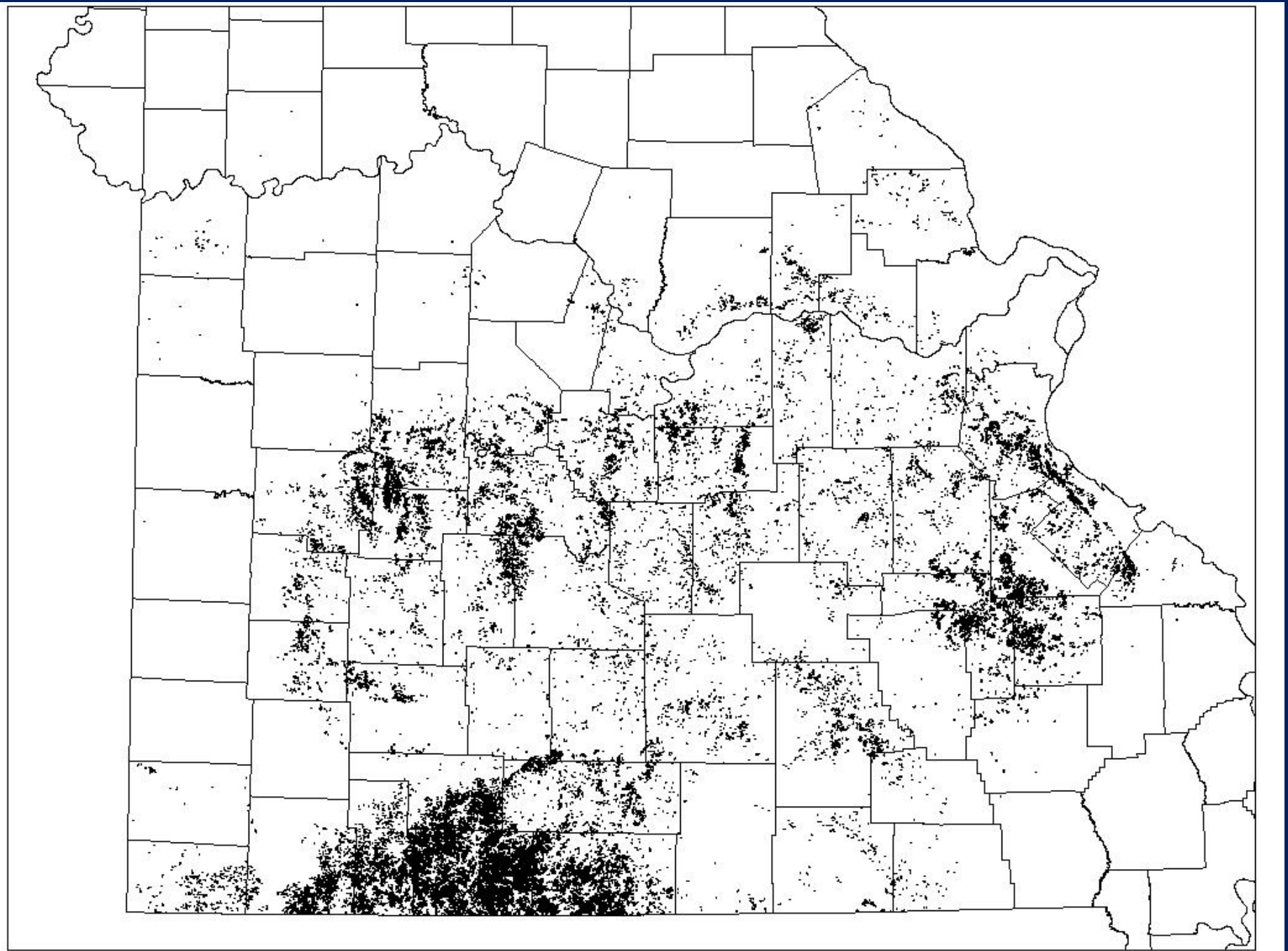
Glades



Spring Creek Gap Glades Natural Area, Maries Co.



Ava Glades Natural Area, Mark Twain National Forest, Ozark Co.





Limestone – Danville Glades Natural Area



Dolomite – Caney Mountain Conservation Area



Igneous – St. Francois Mountains Natural Area



Sandstone – Schwartz Prairie



glade coneflower (*Echinacea simulata*)



eastern collared lizard

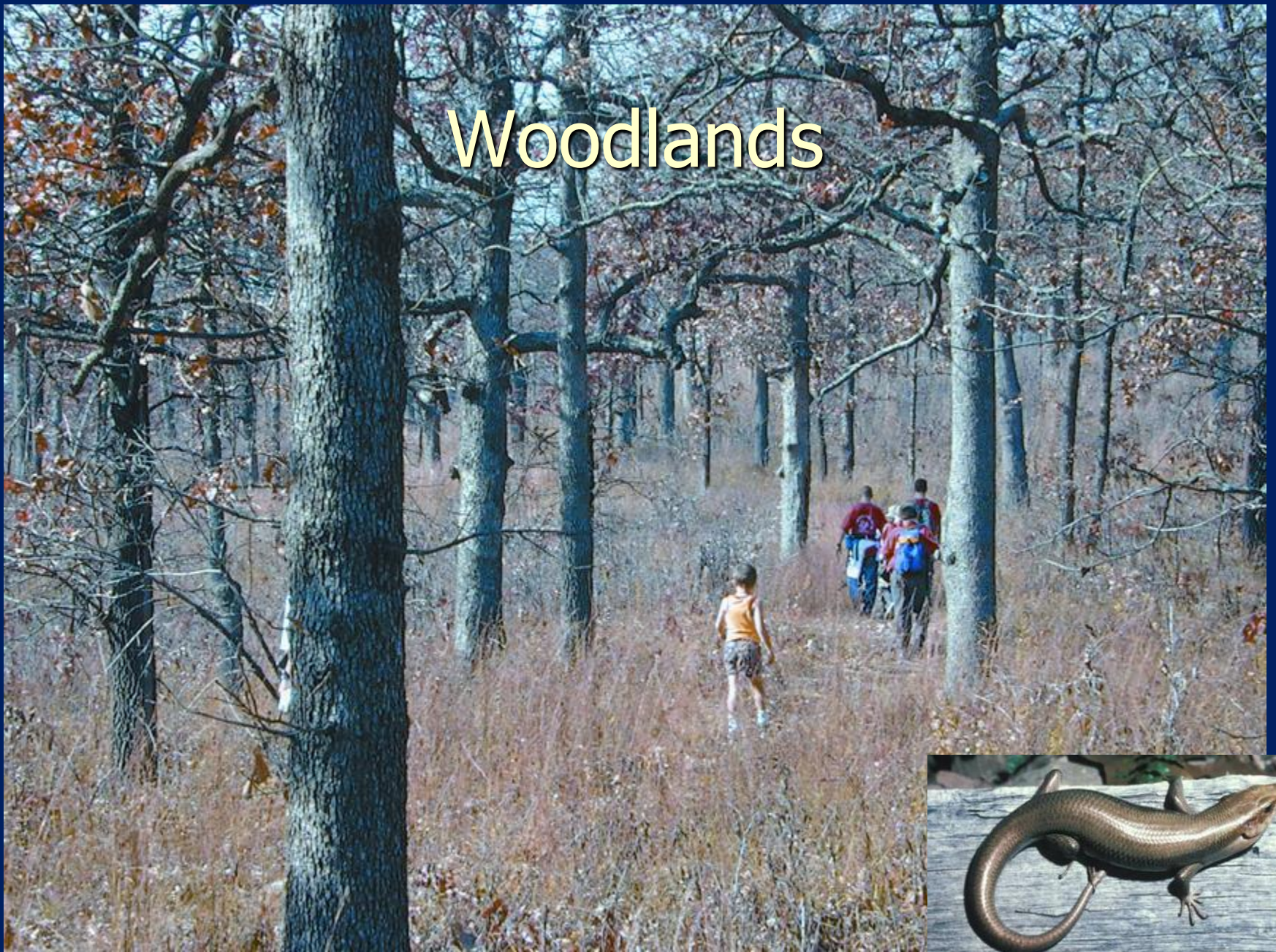


lichen grasshopper

Bush's skullcap (*Scutellaria bushii*) narrow-leaf gayfeather (*Liatris mucronata*)



Woodlands



Ha Ha Tonka Natural Area, Camden County

Broad-headed Skink



Green-legged grasshopper (*Melanoplus viridipes*)



Woodland sunflower
(*Helianthus hirsutus*)





Hopewell Prairie Fen Natural Area, Howell Co.



The blue sage bee (*Tetraloniella cressoniana*, Apidae family) that depends on blue sage, *Salvia azurea*.



Swamp milkweed leaf beetle (*Labidomera clivicollis*)

Brown-belted
bumblebees
on prairie blazing
star



Prairie Mound Ant (*Formica montana*)

Native Grasslands Require Sustained Stewardship





Bottomland Prairie in
Bates County Converted
to Soybeans



The Time is Now



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Questions



Bumblebee on Mead's milkweed