

# What is a Prairie?

Grasslands (Vegetation communities with few or no trees) occur throughout the world.

Grasslands in North America are called prairies.

The word prairie should be restricted to areas with native plants as such areas are quite different from agricultural fields.





## *SOURCES of INFO*

- There is a lot more information on the James Woodworth Prairie website

<http://www.uic.edu/depts/bios/prairie/>

- An excellent site to learn about plants of Illinois is:

<http://www.inhs.uiuc.edu/~kenr/prairieplants.html>



# *North American Prairies*

- Tallgrass, mid-grass, and short grass are major subdivisions of prairie. Vegetation height is positively correlated with annual precipitation. Annual rainfall increases as one moves east from the rocky mountains.

# *Distribution of tall, mid & short grass prairies*

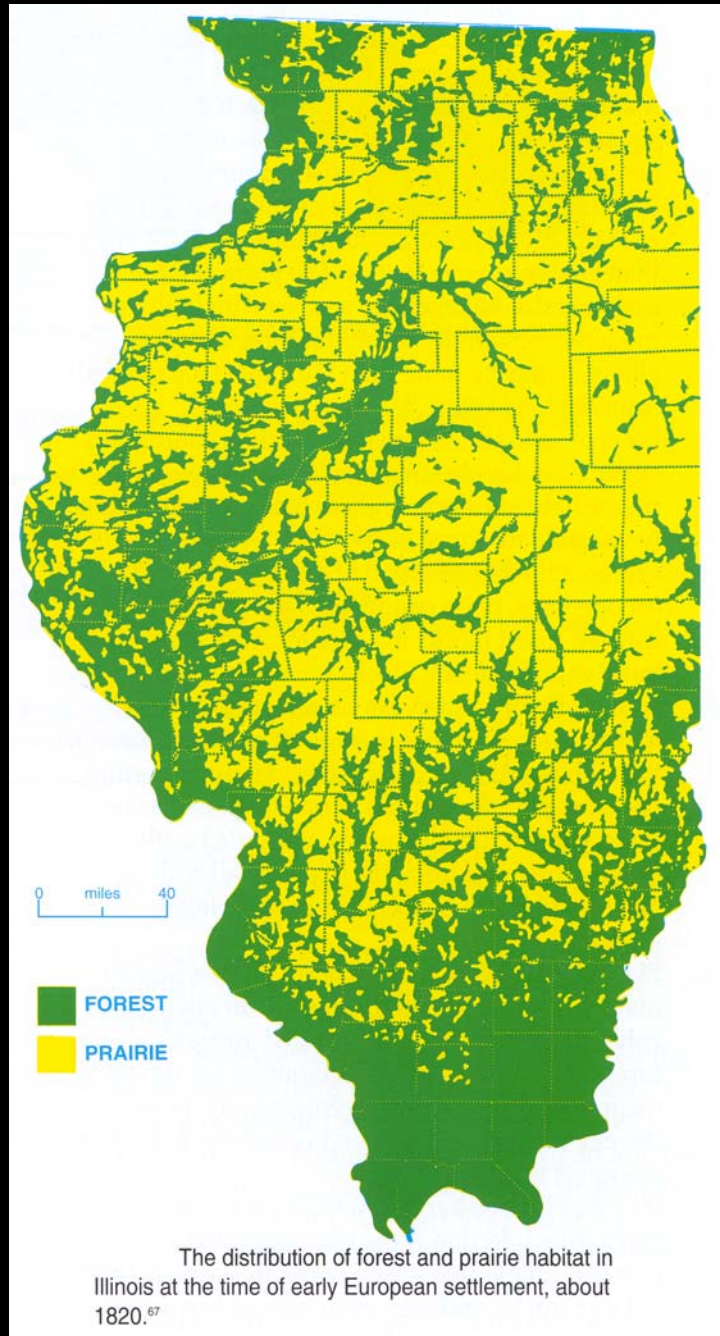


Mid

Short

Tallgrass prairie

# *Prairie in Illinois*





# *Illinois prairies are tallgrass prairies*

## • Categories of tallgrass prairies

- Topography                      flat versus hill (high slope)
- Soil texture                      fine (clay) versus sand
- Moisture level                      xeric (=dry), mesic, wet

## • Prairie Quality

- The simplest is the absence of non-native plants and a low abundance of woody plants.
- More complicated quality evaluations assign different values to different species.

# *Revis Hill Prairie*





## *Natural Area, what is it?*

- An area occupied by the species that lived there prior to agricultural use.
- Most (but not all) natural areas have a high diversity of plant and animal species.
- Natural areas have been lost thru ‘biological pollution’ (native plants displaced by non-native species).



## *Who uses prairie?*

Hundreds of species are dependent on prairie, but this question usually refers to people.

Photographers & artists.

Scientists.

People that find the natural world fascinating.



## *Where can you see prairie near Glenview Illinois?*

- ◆ Morton Grove – MG Park District
- ◆ Wayside Woods –FPDCC
- ◆ Glenbrook North HS
- ◆ Kent Fuller Air Station Prairie – GPD
- ◆ James Woodworth nee Peacock Prairie -  
UIC

# *UIC's Woodworth Prairie, in Glenview*





## *When to Visit?*

- JWP is surrounded by a chain-link fence, so it has to be OPEN to visit.
- June, July and first 3 weeks of August
- Hours are 10-3 seven days a week
  - Usually opened in May, September & October on special days (announced by email).



## *What will you see? Biota*

- Plants
- Animals –especially insects and birds
- Not likely to see those in the soil
  - Many animals burrow in the soil
  - Fungi
  - Protista
  - Bacteria and Archaea



# *Plants of Woodworth Prairie*

- ▶ Grasses and Sedges, e.g.,
  - Leiberg's Panic grass
  - Indian grass
- ▶ Forbs, e.g.,
  - Prairie clover
  - Prairie milkweed
- ▶ Shrubs (woody plants lacking a central stem)

*Leiberg's Panic Grass & Indian Grass*



# *Prairie Clover & Prairie Milkweed*





## *Plant species of Woodworth Prairie*

- ▶ In addition to growth form (woody, herbaceous), we can categorize species by nativity.

### Categories of plants at Woodworth prairie

- ▶ **Autochthonous (=prairie)** species
- ▶ **Native** (to Illinois) but not plants of prairies
- ▶ **Non-native =exotic, =alien** species from other parts of the world



# *Animals of Woodworth Prairie*

## • Insects

- Prairie cicada
- ants
- Butterflies – Peck's skipper

## • Spiders, Prairie crayfish

## • Vertebrates

- birds                      killdeer, redwing, goldfinch
- mammals                mice, voles, shrews, rabbits

# *Prairie cicada & Peck's skipper*



*Argiope*  
*Garden Spider*



*Killdeer*



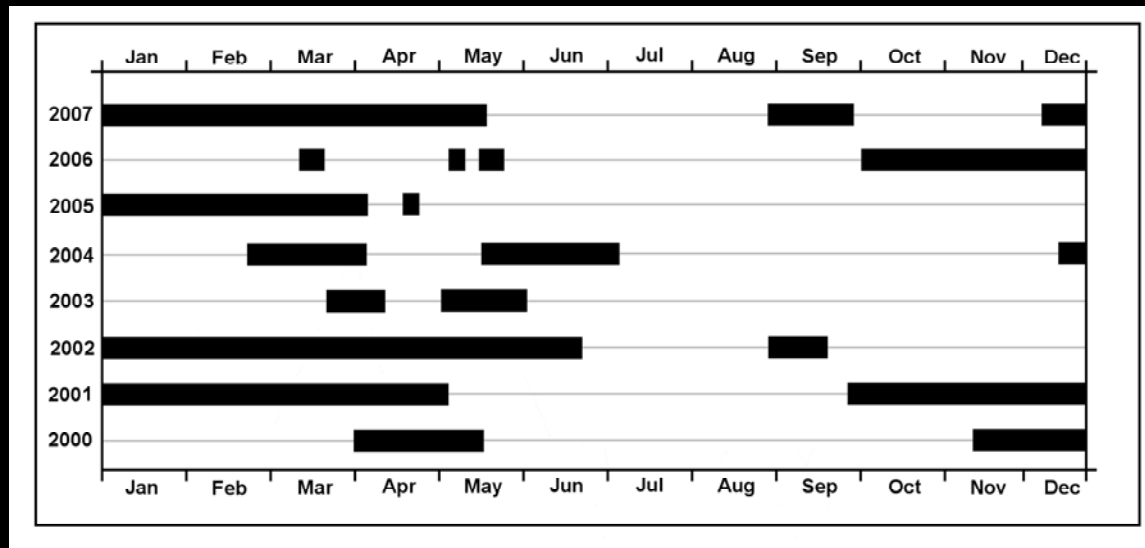


## *Woodworth Prairie Wetlands*

- There are four areas that normally hold water at least part of the spring.
- Because they hold water only part of the year they are described as **ephemeral**.
- The deepest pool at Woodworth has a maximum depth of 44 cm (knee deep).
- Female crayfish release their young in the pool in spring.

# Woodworth's Milwaukee Swale

## Hydrograph



Thick black line = Water present



# The Prairie Crayfish

## *Procambarus gracilis*

- The mounds of the prairie crayfish are an easily seen feature of Woodworth Prairie.
- The crayfish lives in burrows that it digs and may be 2 m (6 feet) deep.
- The mounds can be 4-6 inches tall and are often pure clay (from depth > 50 cm).

# *Procambarus gracilis* mounds



# *Procambarus gracilis*





# *Management is necessary to perpetuate native species*

- Conservation ownership is not sufficient to preserve native communities in natural areas. Actions taken by people to conserve native species are called **management**.
- Management Activities
  - **Burn** (controls abundance of woody species)
  - **Remove** (i.e., kill) non-native species
  - **Supplement** populations of prairie species

# *Burning at Woodworth Prairie*





## *Management Activities*

- Cut and herbicide dogwood, a native shrub that has been increasing dramatically.
- Collect seed and grow individuals of rare native species in the garden that surrounds the building.
- Remove concrete and other residue of human economic activity.

*There is still dumped material*





# *Why Preserve Natural Areas?*

- Societies balance the interests of individuals and support things that a small minority may be interested in.
  - A proportion (albeit small) of individuals find plants and animals fascinating.
  - On a global scale plants are very important for life.
- These are reasons to preserve natural communities.