

# Challenges in Using Fire to Manage a Field Station at an Undergraduate College

By

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# Background



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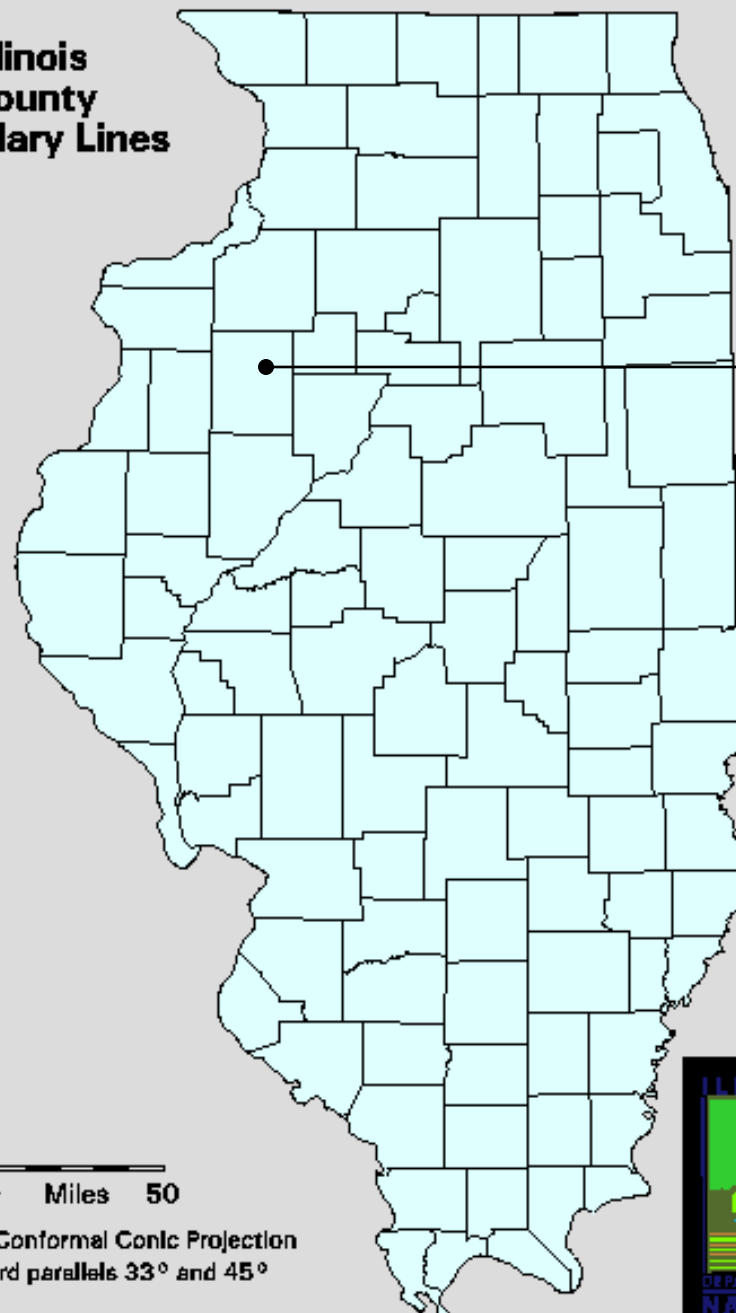
# GREEN OAKS

Knox College  
Field Study Center

OPEN TO THE MEMBERS  
OF THE KNOX COLLEGE COMMUNITY  
AND THEIR GUESTS

Open for day use on  
Wednesdays, Saturdays, and Sundays  
Overnight guests must schedule in advance.

**Illinois  
County  
Boundary Lines**



**Green Oaks**

0 Miles 50

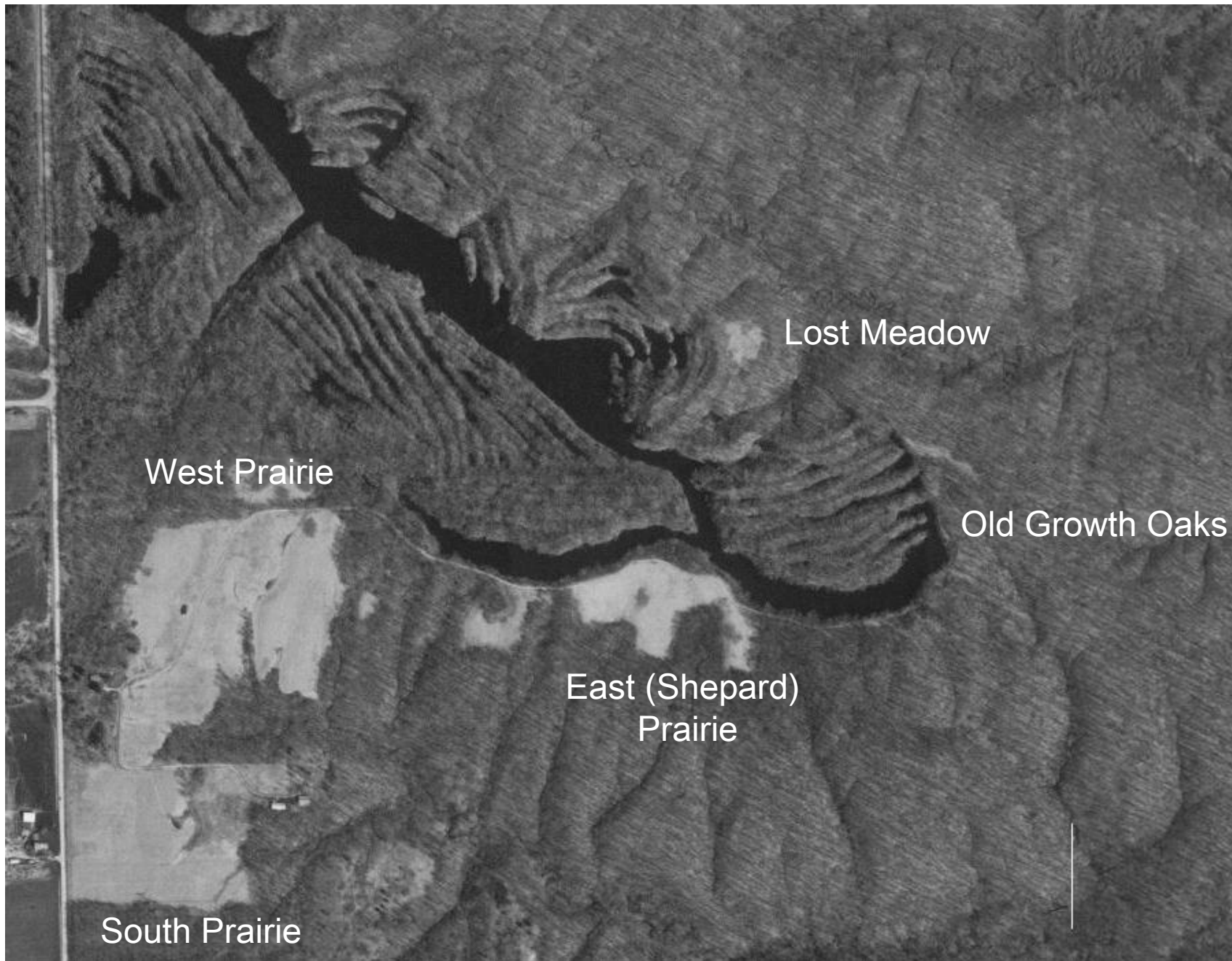
Lambert Conformal Conic Projection  
standard parallels 33° and 45°

GIF produced June 13, 1997



# The Basics

- Green Oaks is a 704 acre site
- About 39 acres is in prairie
  - East (Shepard) Prairie – restored 7 acres
  - West Prairie – restored 19 acres
  - South Prairie – restored 12 acres
  - Lost Meadow – remnant – 1 acre
- 200 acres strip-mined for coal in 1940-41
- 40 acre lake
- The rest is wooded with old growth white oak and second growth oak-hickory-maple forest



West Prairie

Lost Meadow

Old Growth Oaks

East (Shepard)  
Prairie

South Prairie

# Restoration History

- East Prairie – first planted in spring of 1955 by Paul Shepard and George Ward with seeds from 63 species – some seed from Wisconsin Arboretum, rest locally collected
- West Prairie planting began in late 1950's, expanded by Pete Schramm in 1960's and 70's; also added South Prairie in 60's and 70's; Schramm overplanted until late 1980's
- Schramm planted seeds of 48 local species; 35 of them definitely established from his plantings
- Today at least 116 species in the restored prairies



# South Prairie – pre-restoration





# Early Prairie Restoration



# Long History of Use of Fire



- Advantages – no one questions use of fire at Green Oaks
- Disadvantages – no one questions use of fire at Green Oaks

# Fire History

- Shepard years – 1955-1963 – not certain, probably annually
- Schramm years – 1965-1995 – annually
- 1995-1999 – two year rotation
- 2000 – present – three year rotation – (although sometimes burn more frequently if necessary)

# Early prescribed burning

1955 – ‘John Ruzecki and I attempted to burn the Lost Meadow, a relict corner of a field mostly destroyed by strip mining. We lost control of the fire and worked ourselves into exhaustion to keep the fire from running over the whole of the spoil banks. When we staggered into the local bar in Victoria for a cool beer after 6 hours of intense effort they refused to serve us we were so dirty.’

– Paul Shepard

# Pete Schramm Burning the Prairie – 1980's





# Prairie Fire – South Prairie – Green Oaks, April 2003



# Prairie Fire – West Prairie – Green Oaks, April 2009



# Challenges



# Budget and Staff Issues

- Annual budget of \$8000 for entire field station
- Staff – two part-time permanent staff
  - The Director – a full time professor – receives a small stipend
  - The Caretaker – a full time IT employee – receives housing at field station in return for work
- All other workers are volunteers

# Use by Many Different Constituents

- Original plan from Paul Shepard was for field station to have many uses and users
- During Pete Schramm's tenure as director emphasis shifted to managing as nature preserve with few users
- Today increasing involvement by different members of Knox College community – the Green Oaks term (residential program), many classes, research projects, stewardship program, artists, etc.



# Changing State of Illinois Regulations

- Illinois Prescribed Burning Act, 2009, Section 1565.50 Conducting Prescribed Burns  
“a) In order to ensure the safety of personnel and the public, a certified prescribed burn manager shall be present at the scene of all prescribed burns except where the landowner is conducting prescribed burning on his or her own lands or on the lands of another with the landowner's permission as authorized by Illinois law.”

# Changing State of Illinois Regulations

- Illinois Prescribed Burning Act, 2009, Section 1565.50:  
"e) When a person is conducting prescribed burning on his or her own lands or on lands of another with the landowner's permission, the person shall have a written burn prescription, make the notifications described in Section 1565.40, and conduct the burn as described in Section 1565.50(b) and (c)."

# Training Students – send them to take courses elsewhere



Prescribed fire class – Ohio State University – Gwynne Conservation Area

# Wildland Fire Fighter and Knox Student – Forrest Rackham



Burning Brush Piles - Colorado



**KNOX COLLEGE  
PRESCRIBED FIRE  
&  
WILDFIRE  
SAFETY COURSE  
(FALL 2012)**





# **YOU ARE BEING ASKED TO BE A FIRE FIGHTER (SORT OF)**

THIS MEANS:

- INTERACTING WITH FIRE
- BEING RESPONSIBLE
- BEING AVAILABLE
- LISTENING TO ORDERS
- ACCEPTING SOME LEVELS OF HARD WORK
- ACCEPTING POTENTIALLY LONG HOURS
- ACCEPTING THAT YOU MAY BE IN A  
HAZARDOUS ENVIRONMENT
- BEING WILLING TO MAKE SAFETY YOUR  
NUMBER ONE PRIORITY

# Conclusions



# Many challenges, few easy solutions

- Must have clear management goals and strategy
- Entire community must buy into those goals and strategies
- Long term future of use of prescribed fire at Green Oaks depends upon increased student training, training for director, clear burn plans and continuously improving safety practices
- Have purchased PPE and more equipment for all fire workers
- Working more closely with local Victoria Volunteer Fire Department
- Budget is likely to remain ridiculously small

# Thank You

