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

By
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Background
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.
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
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 late1980’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)
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