

# Lake States Fire Science Consortium

<http://lakestatesfiresci.net>

A JFSP KNOWLEDGE EXCHANGE CONSORTIUM



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Volume 2 Issue 4

## OUR MISSION

*Accelerate the awareness, understanding, and adoption of wildland fire science information by federal, tribal, state, local, and private stakeholders in Michigan, Minnesota, and Wisconsin*

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## LEARNING LESSONS FROM MACK LAKE

The Mack Lake Fire  
Staff Ride Experience  
Online and Onsite

*"The Mack Lake Fire was the result of an escaped prescribed fire that was intended to create habitat for the endangered Kirtland's Warbler. It burned 24,000 acres over the course of approximately 8 hours, destroyed 44 structures, and resulted in the death of the USFS tractor plow operator, who was a wildlife technician assigned to management of the Warbler habitat."*

As we approach another spring fire season, ready to apply management fire, the past has some important lessons for us and those we lead or follow.

The May 5, 1980 "Mack Lake Fire" on the Huron-Manistee National Forest, near Mio, Michigan, is now one of 13 nationally historic wildfires offered as a 'staff ride' case study for students of leadership and organizational development. The NWCG Wildland Fire Leadership Development Program has adapted this practice from our military services.

contact Steve Goldman  
([sgoldman@fs.fed.us](mailto:sgoldman@fs.fed.us))  
for more information



Planned as a 3-step process, it begins by accessing an [on-line Staff Ride Library](#) that includes investigative reports, progress maps, photos of the fire, and other documentation. This information can be utilized as **preliminary study** resources that will prepare participants prior to attending a field study day at the site of the fire.

Facilitators at the **site visit** can frame and lead discussion as they trace the progress of the fire along with the decisions and actions of those involved.

At the conclusion of the field study day, participants take part in the **"integration phase"** of the learning event where they will review and summarize the lessons learned in the preliminary study and field study phases, and discuss how their learning can be incorporated into their own 'leadership tool-kit'. Diverse composition of the 'learning groups' tends to add to the richness of the discussion and the learning.

# Fuel Flammability: Is it Dry Enough?

As you consider whether your burn site is in prescription, the decision frequently turns on the question of fuel moisture. On-site temperature and humidity are estimated as proxies for dead fuel moisture. There are a variety of drought assessment tools used to provide a context to fuel moistures generally. But the most frequent impediment to making a “go” decision on a growing season burn is the question of live fuel flammability.

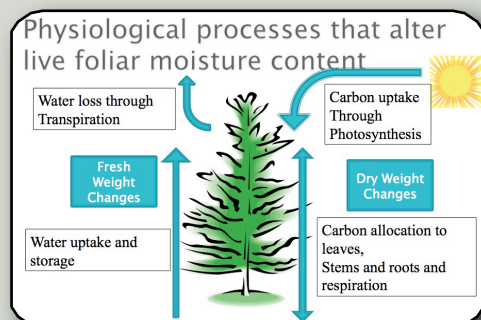


To address this question, a group of Lake States practitioners met online recently to discuss their experience and future plans for fuel moisture sampling. Among the group, there were representatives from

the Superior National Forest, the Chequamegon National Forest, the Wisconsin DNR, the Michigan DNR, and The Nature Conservancy.

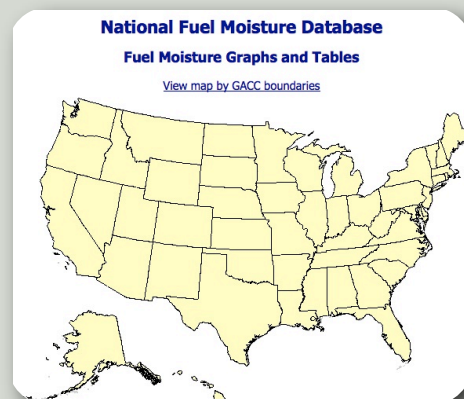
As a part of that meeting, we heard from Ann Hadlow and Matt Jolly from the Rocky Mountain Research Station’s Fire Lab in Missoula. Matt reported on his ongoing JFSP research on the ignition of live wildland fuels.

Whereas the fire models think of live fuels as wet dead fuels, Matt’s research suggests that their flammability is as dependent on changes in the solid contents as on the changes in moisture content.



They are working on better ways to predict live fuel flammability.

To emphasize the value of sharing fuel moisture information, the [National Fuel Moisture Database](#)



was demonstrated to the group. Agencies reported what fuels they were sampling, what equipment they were using and how they were using the information in decisions.

As administrator of the database for the eastern area, Steve Marien ([stephen\\_marien@nps.gov](mailto:stephen_marien@nps.gov)), reported on obtaining permission to establish sites and samples in the database.

For more info, contact Patty Johnson ([pjohnson@fs.fed.us](mailto:pjohnson@fs.fed.us)) or Robert Ziel ([ziel.4@osu.edu](mailto:ziel.4@osu.edu))

## Member Spotlight



## Advisory Committee Holds First Meeting

To insure that we are end-user driven, inclusive and neutral in our efforts to promote fire science, the consortium will seek the guidance of an Advisory Committee that represents practitioner needs and interests of the consortium members. They will also help share info in their organizations.

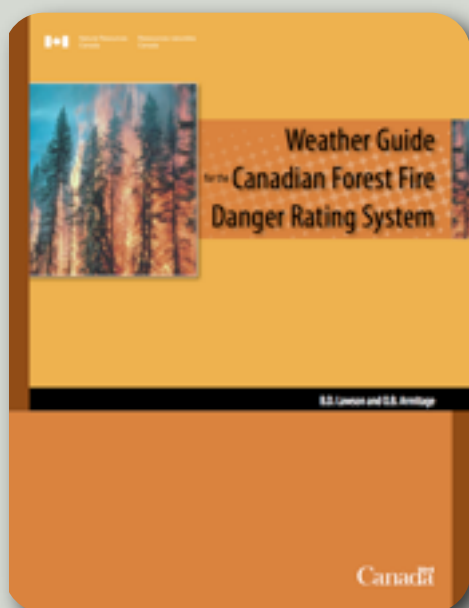
Committee Members (to date)  
 Tim Hepola, Fish & Wildlife Serv  
 Terry Gallagher, USFS  
 Michele Richards, Military Affairs  
 Kathie Hansen, Nat. Park Serv  
 Doug Miedtke, MN DNR  
 Dave Heaman, Ontario MNR  
 Andy Henrickson, NRCS  
 Marty Cassilius, BIA  
 Russ Reisz, TNC



# FLASH

SCIENCE YOU CAN USE

## PUBLICATION SUMMARIES



The [Weather Guide for the Canadian Forest Fire Danger Rating System](#) is an operational guide for gathering, processing, and forecasting fire weather information in support of safe and effective suppression and use of fire. This weather guide includes detailed specifications for locating and instrumenting fire weather stations, taking weather observations, and overwintering the Drought Code component of the FWI System. The sensitivity of the FWI System components to weather elements is represented quantitatively. The importance of weather that is not directly observable is discussed in the context of fuel moisture and fire behavior.



[The Mack Lake Fire](#), published in 1983, is still an important reference for lake states fire managers, reporting on the fire environment, the fire itself, and its fire effects.

## OTHER REFERENCES

[Restoration of Oak Ecosystems Using Prescribed Fire: A regional look at Fire Effects Monitoring \(presentation\)](#)



## CONSORTIA CORNER

### LAKE STATES ANNOUNCEMENTS

- [IAWF Webinar: Fire, Carbon and Climate: Past and Future, April 19, 1500 ET, 1400 CT,](#)
- Joint Fire Science Program's All Consortia meeting, April 26-28, Denver
- [Stewardship Network Webcast: Restoring Ecosystem Health to your land, May 11th 1200 ET, 1100 CT](#)
- [SAF National Workshop on Climate and Forests, May 16-18, Flagstaff, AZ](#)
- [4th Fire in Eastern Oak Forests Conference, May 17-19, Springfield Missouri](#)

# Demonstration Sites

Important among outreach initiatives this summer, we hope to establish 5 or more demonstration sites that can be used to facilitate research / manager interactions, outdoor education opportunities, and self-directed tours for visitors new to an area.

As stated elsewhere, we intend to emphasize:

- events that demonstrate the fire regime for specific natural communities
- wildland situations that highlight a management question or issue
- fire management practices and the decisions that support them.

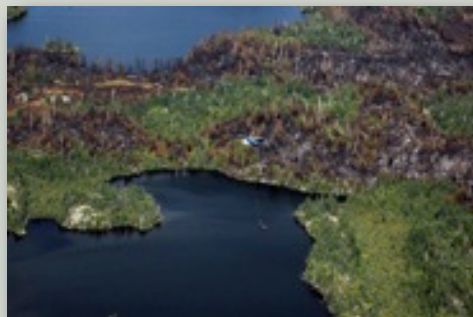
We are looking to establish 5 or more sites this summer across the three states and develop the following information to support their use.

- A vicinity map to facilitate navigation to the site and a site map that highlights site features.
- A set of GPS tracks and points to support their use
- A summary document that provides background about the site and/or event, poses questions that may be explored, suggests references that may facilitate understanding, and identifies a key local contact for further information

This information will be posted on the consortium website for download. Contact Robert Ziel ([ziel.4@osu.edu](mailto:ziel.4@osu.edu)) if you have a site to recommend.

## Example Sites and References

- **Boundary Waters Blowdown; a fire regime example**



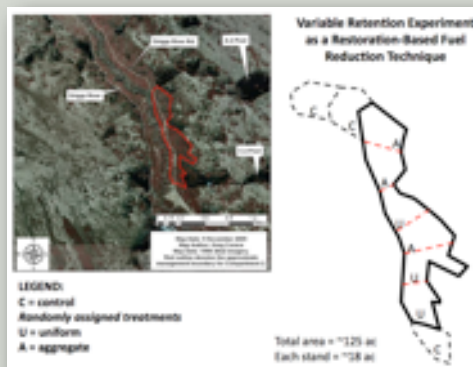
*[example summary document](#)*

- **Wisconsin State Natural Areas locator**



*[example locator information](#)*

- **Seney National Wildlife Refuge Dry Northern Forest Restoration Treatments**



*[example site map](#)*

## Lake States Administrative Team

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