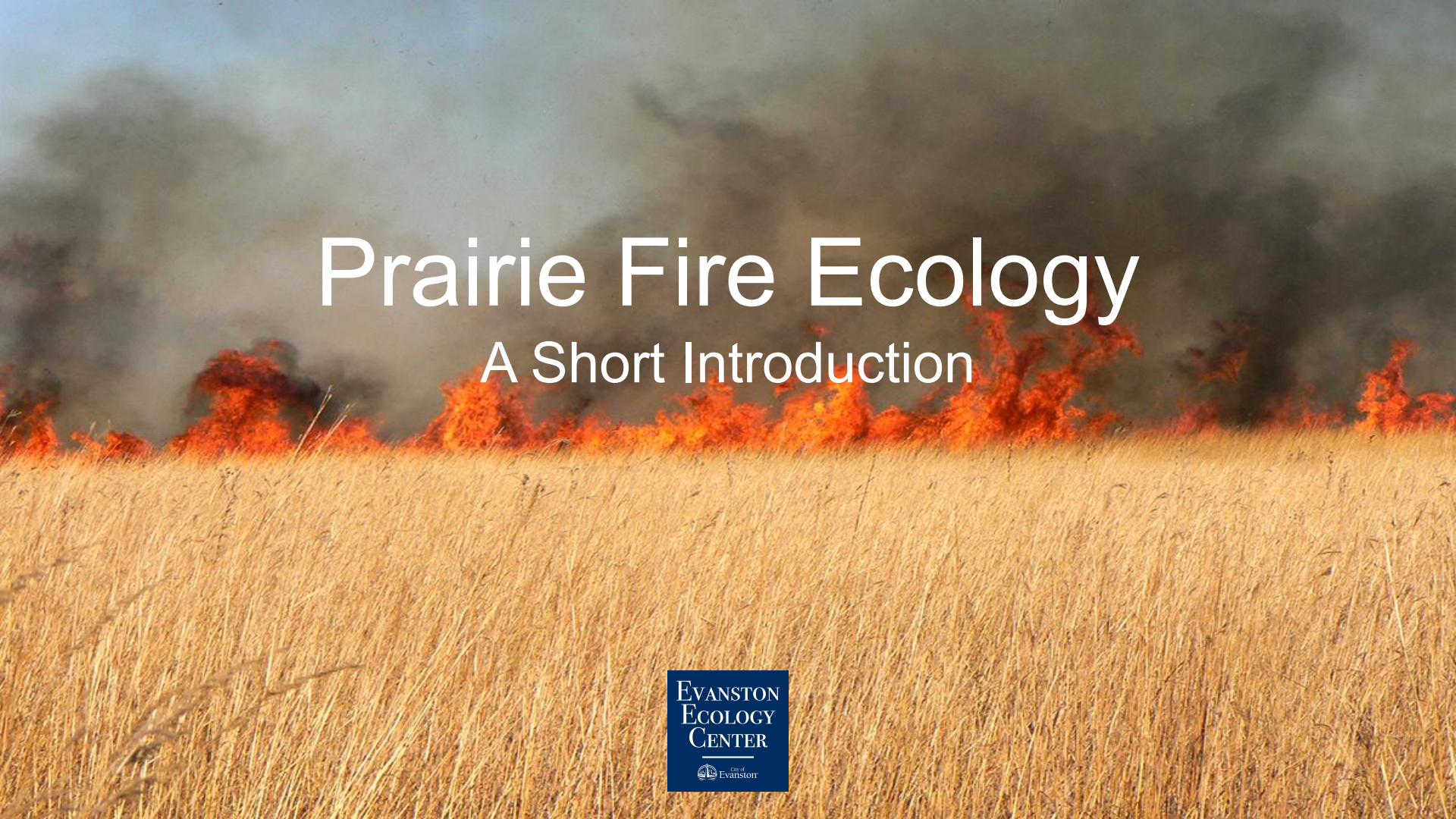


Prairie Fire Ecology

A Short Introduction

Evanston Ecology Center

City of Evanston

Wildfires raise different questions, thoughts, and emotions in different people. Before we begin, let's think, pair, share:

What are your thoughts and feelings about wildfires?



Indigenous uses of fire

Evanston sits on the homelands of the Council of Three Fires - made up of the Potawatomi, Ojibwe, and Odawa tribes. This land served as a meeting place for the council to have military and political discussions.

Fire was an important tool for them that did many things:

- Fire was used to herd bison into groups for hunting
- Fires helped to maintain the prairie, keeping trees, shrubs, and invasive plants from taking over the grassland
- Low-intensity fires helped to reduce populations of pests like ticks, rodents, poisonous snakes, and mosquitoes
- Fire was used to clear land for various reasons such as agriculture, economic exploitation, and war
- Fire is a powerful and meaningful force that all living beings have a connection to



Use of fire in ecology

Even today, fire is an important tool used by both Mother Nature and biologists. While natural prairie fires still occur, biologists often deliberately set prairie fires referred to as **prescribed burns**.

Prescribed burns are used to:

- Promote native plant growth (prairie = fire-dependent ecosystem)
  - Some native plants (i.e. big bluestem) need fire to germinate (start growing)
- Control invasive plants like shrubs, trees, and saplings
  - Ex: invasive buckthorn would take over and crowd wildflowers/grasses
- Remove dead plant material (aka “thatch”) to allow younger plants to get sun
  - The ash from thatch is useful in returning mineral-rich nutrients to the soil



How does a prairie fire start?

Prairie fires can start from a variety of sources. Let's put our heads together and try and guess how a fire could start in a grassland!



Prescribed burns

Lightning strikes





Human activity

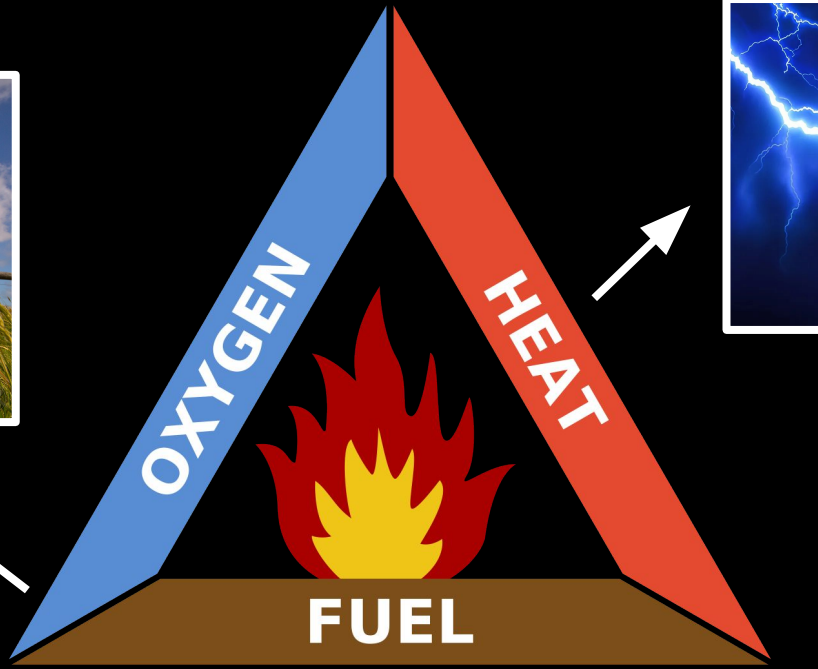
How does a prairie fire spread?

Prairie fires typically occur in the dormant seasons when plants are not actively growing. Dry dead plants (thatch) act as fuel for the fire to spread.










Now that we have learned all about prairie fires, let’s go experiment with them!