

Updated: 10-19-21



**natural areas**  
ASSOCIATION

10.19.2021

virtual  
**2021 Natural Areas Conference**  
Life from the Ashes: Exploring the Impact of Prescribed & Natural Fire on Insects and Other Invertebrates

## Symposium Description:

Ecosystems throughout North America evolved with wildfire. Today, prescribed fire is an important tool for managing habitat by maintaining open, early seral landscapes. Fire can greatly improve the value of habitat for insects and other invertebrates, often increasing species abundance and diversity, however, fire (both natural and prescribed) in the wrong place, at the wrong scale, or at the wrong time can have the opposite effect - negatively impacting invertebrate communities and their habitat.

***Life from the Ashes*** will explore the positive and negative impacts of prescribed and natural fire related to insects and other invertebrates in landscapes across North America. The symposium will provide research and practical insights to inform natural areas professionals as they manage landscapes with fire.

This program is provided in a collaboration between the **Natural Areas Association (NAA)** and the **Xerces Society for Invertebrate Conservation (Xerces)**. NAA serves those dedicated to the management and restoration of biologically important natural areas in North America. Xerces is an international nonprofit organization that protects the natural world through the conservation of invertebrates and their habitats. Protecting nature requires reliable science to inform practices on-the-ground and a network of stewards who work tirelessly to protect, manage, and restore land and water biodiversity.

# Agenda

| Time            | Session Title   |
|-----------------|---|
| 11:00am-11:30am | <p>Opening Remarks, Announcement of the 2020 and 2021 <a href="#">Fell &amp; Becker Awards</a></p> <ul style="list-style-type: none"> <li>• <b>Lisa Smith</b>, Executive Director of the Natural Areas Association</li> </ul>   |
| 11:30am-12:15pm | <p><a href="#">Life from the Ashes: Exploring the Impact of Prescribed Fire &amp; Natural Fire on Insects and Other Invertebrates</a></p> <ul style="list-style-type: none"> <li>• <b>Scott Hoffman Black</b>, Executive Director of the Xerces Society for Invertebrate Conservation</li> </ul>  |
| 12:15pm-12:35pm | Break   |
| 12:35pm-1:05pm  | <p><a href="#">Predicting the Resistance of Plant-Pollinator Assemblages to Fire</a></p> <ul style="list-style-type: none"> <li>• <b>Molly Martin</b>, Conservation Biologist, Xerces Society for Invertebrate Conservation</li> </ul>  |
| 1:05pm-1:35pm   | <p><a href="#">The Impact of Western Fires on Bumble Bees</a></p> <ul style="list-style-type: none"> <li>• <b>John Mola, Ph.D.</b>, Research Ecologist, Fort Collins Science Center, USGS</li> </ul>  |
| 1:35pm-2:05pm   | <p><a href="#">The Impact of Prescribed Burning on Native Bee Communities (Hymenoptera: Apoidea: Anthophila) in Longleaf Pine Savannas in the North Carolina Sandhills</a></p> <ul style="list-style-type: none"> <li>• <b>Elsa Youngsteadt, Ph.D.</b>, Assistant Professor of Applied Ecology, North Carolina State University, Youngsteadt Lab</li> <li>• <b>Clyde Sorenson</b>, Alumni Association Distinguished Undergraduate Professor, Entomology and Plant Pathology, North Carolina State University</li> </ul> |
| 2:05pm-2:25pm   | Break   |
| 2:25pm-2:55pm   | <p><a href="#">Prescribed Fire Effects on Rangeland Dung Beetles (Coleoptera: Scarabaeinae, Aphodiinae) in the Southern Great Plains</a></p> <ul style="list-style-type: none"> <li>• <b>Robin M. Verble, Ph.D.</b>, Director, Ozark Research Field Station, Associate Professor of Biological Sciences, Missouri University of Science and Technology</li> </ul>   |
| 2:55pm-3:25pm   | <p><a href="#">Ant Community, Diversity, and Seed Interactions in Longleaf Pine Forest Managed with Frequent Fire</a></p> <ul style="list-style-type: none"> <li>• <b>Rachel Atchison</b>, Biological Science Technician, USDA ARS, Imported Fire Ant and Household Insects Research</li> </ul>   |
| 3:25pm-3:55pm   | <p><a href="#">Using Prescribed Fire and Grazing to Manage for Biodiversity in the Great Plains</a></p> <ul style="list-style-type: none"> <li>• <b>Ray Moranz</b>, Grazing Lands Pollinator Ecologist, Partner Biologist, NRCS Central National Technology Support Center</li> </ul>   |
| 3:55pm-4:15pm   | Break   |
| 4:15pm-4:55pm   | <p>Closing Thoughts and Discussion</p> <ul style="list-style-type: none"> <li>• Join Scott Hoffman Black as he facilitates an open discussion with conference presenters to highlight important concepts identified throughout the event. Audience members are encouraged to submit questions in advance or during the live stream session.</li> </ul>  |
| 4:55pm-5:00pm   | Conclusion  |
| 5:00pm-5:30pm   | Social Hour   |

## **ANNOUNCING STEWARDSHIP SHORTS!**

Six STEWARDSHIP SHORTS will be included in the *Virtual* Conference agenda and will play in between live virtual sessions. All STEWARDSHIP SHORTS will be made available for on-demand viewing on the conference website during and after the event.

### **STEWARDSHIP SHORTS are:**

- Brief 3-to-5-minute, pre-recorded video presentations that describe a project, methodology, best practice, or challenge related to a natural area(s) and can focus on any area of conservation ecology.
- An opportunity to share your work so that you can become a resource to your colleagues, and they can become a resource to you.
- Short vlog experiences that last no more than five minutes. Recording the video in the field is highly encouraged.

### **Watch NAC21 Stewardship Shorts**

## Speakers and Abstracts



**Lisa Smith**  
Executive Director  
Natural Areas Association

**Opening Remarks, Announcement of the 2020 and 2021 Fell & Becker Awards**



**Scott Hoffman Black**  
Executive Director  
Xerces Society for Invertebrate Conservation

***Life from the Ashes: Exploring the Impact of Prescribed Fire & Natural Fire on Insects and Other Invertebrates***



**Molly Martin**  
Conservation Biologist  
Xerces Society for Invertebrate Conservation

***Predicting the Resistance of Plant-Pollinator Assemblages to Fire***



**John Mola, Ph.D.**  
Research Ecologist  
Fort Collins Science Center, USGS

***The Impact of Western Fires on Bumble Bees***



**Elsa Youngsteadt, Ph.D.**  
Assistant Professor of Applied Ecology  
North Carolina State University

***The Impact of Prescribed Burning on Native Bee Communities (Hymenoptera: Apoidea: Anthophila) in Longleaf Pine Savannas in the North Carolina Sandhills***

## Speakers and Abstracts



### Clyde Sorenson

**Alumni Association Distinguished Undergraduate Professor,  
Entomology and Plant Pathology  
North Carolina State University**

***The Impact of Prescribed Burning on Native Bee Communities  
(Hymenoptera: Apoidea: Anthophila) in Longleaf Pine Savannas in  
the North Carolina Sandhills***



### Robin Verble, Ph.D.

**Director, Ozark Research Field Station,  
Associate Professor of Biological Sciences, Missouri University of  
Science and Technology**

***Prescribed Fire Effects on Rangeland Dung Beetles (Coleoptera:  
Scarabaeinae, Aphodiinae) in the Southern Great Plains***



### Rachel Atchison

**Biological Science Technician, USDA ARS,  
Imported Fire Ant and Household Insects Research**

***Ant Community, Diversity, and Seed Interactions in Longleaf Pine  
Forest Managed with Frequent Fire***



### Ray Moranz

**Grazing Lands Pollinator Ecologist,  
Partner Biologist,  
NRCS Central National Technology Support Center**

***Using Prescribed Fire and Grazing to Manage for Biodiversity in  
the Great Plains***