Forums Program and Abstracts
Wednesday, June 28 | Skinner A and B

10:00 to 12:00
Paper Session 7, Skinner A
Forum A: Western Prairie Fringed Orchid Recovery, F1 Abstract

The western prairie fringed orchid (*Platanthera praeclara*) is federally protected under the Endangered Species Act as a threatened species and is found in moist tallgrass prairies in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and Manitoba, Canada. Main threats to the species include the conversion of remnant prairie to cropland, incompatible use of herbicides and pesticides, siltation, changes in hydrology, fire suppression, encroaching woody vegetation, and the spread of non-native, invasive plant species. In this 2-hour forum, we bring together a subset of researchers, resource managers, and practitioners leading recovery efforts for the orchid and attendees interested in learning more about the species and joining our ever-growing community working towards recovery of this stunning orchid. The forum will begin with an overview of western prairie fringed orchid recovery efforts, the status of the species across its range, the pollination biology of the orchid, and microbial ecology and implications for in situ and ex situ conservation. Presentations will be followed by an open discussion focused on current and future recovery needs, opportunities for involvement, monitoring and management questions, and the role of citizen science in evaluating the status of the species.

10:00 to 10:10 Introduction, Dawn Marsh, U.S. Fish and Wildlife Service, Minnesota-Wisconsin Field Office, Bloomington, MN

10:10 to 10:25 Dawn Marsh
Overview of the western prairie fringed orchid and tracking progress towards recovery under the ESA

10:25 to 10:40 Derek Anderson, Minnesota Department of Natural Resources
The Status of Platanthera praeclara in Minnesota

10:40 to 10:55 John Pearson and Mark Leoschke, Iowa Department of Natural Resources, Des Moines IA
Western prairie fringed orchid in Iowa

10:55 to 11:10 Steven Travers, North Dakota State University, Fargo, ND
The pollination biology of Platanthera praeclara

11:10 to 11:25 Jaspreet Kaur, University of Wisconsin - La Crosse, La Crosse, WI
Microbial ecology: Implications for in situ and ex situ conservation

11:25 to 11:55 Roundtable discussion, All

11:55 to 12:00 Wrap-up and closing thoughts, Dawn Marsh

1:00 to 3:00
Paper Session 9, Skinner A
Forum B: On Common Ground: A multidisciplinary engagement in Iowa's Loess Hills, F2 Abstract

Inspired by a similar event on Mount St. Helens, *On Common Ground* convened over two dozen artists, writers, and naturalists to the Iowa's northern Loess Hills during a weekend at Joy Hollow Girl Scout camp in early Fall 2021. Although not as famous as Mount St. Helens, the Loess Hills are an exceptional natural landscape and a worthy environment for interdisciplinary interaction. The landform, sculpted from the deepest deposits of wind-borne glacial silt in the United States, is home to a significant collection, both in size and number, of Iowa's remnant prairies. The group shared space and stories, participated in a prairie burn, and encountered a bison herd. Keynote facilitators were Dan O'Brien (*The Rites of Autumn; The Contract Surgeon; Buffalo for the Broken Heart*) and Connie Mutel (*Fragile Giants; The Emerald Horizon; A Sugar Creek Chronicle*). Although delayed a year by COVID-19, this place-based collaboration among the Arts, Humanities, and Sciences has inspired a 30-minute documentary, an anthology of poems, essays, and artwork, an indoor mural, and educational material. Our expanded session will include viewing the documentary, readings from anthology contributors, and a discussion among the audience and panel.

1:00 to 1:15 Introduction, Dr. Brian T. Hazlett, Department of Biology, Director of the Center for Prairie Studies, Briar Cliff University, Sioux City, IA

1:15 to 1:45 Documentary film

1:45 to 2:30 Book readings by authors:

- Dr. John T. Price, Department of English, Director of the Creative Nonfiction Writing Program, University of Nebraska at Omaha, Omaha, NE
- Melanie Krieps Mergen, Singer-songwriter & Writer, Mason City, IA
- Connie Mutel, Senior Science Writer (retired), IIHR-Hydroscience & Engineering, University of Iowa College of Engineering, Iowa City, IA
- Scott Moats, Director of Lands/Fire Manager Iowa/Missouri, The Nature Conservancy, Westfield, IA

2:30 to 3:00 Questions and Answers, Discussion – Dr. Ryan Allen, Lumin Therapy, Sioux City, IA

1:00 to 3:00
Paper Session 10, Skinner B
Forum C: Born in Crisis: The NRCS and prairie reconstruction and management, F3 Abstract

For 90 years the Natural Resources Conservation Service (NRCS) has met the nation's natural resource challenges with technical innovation, demonstration of concept, and a strong determination to succeed. The Dust Bowl that followed a worldwide economic depression was a sobering crisis that upon closer examination, would serve as a launching point for continental-scale resource preservation and conservation. Hugh Hammond Bennett is well known for championing the cause of soil conservation. His famous 1935 testimony to Congress was well timed with the largest dust storm in U.S. history, which engulfed Washington, DC that day. As the first Chief of what would become the NRCS, Bennett was keen to recognize the consequences of what he called "land devegetation." Moreover, as a contemporary of Aldo Leopold and other champions of conservation at the time, Bennett knew the remedy to soil erosion would require a broader focus than preventing soil loss alone.

The loss of the North America's grasslands is a crisis that the NRCS is prepared to confront. Using science, and decades of experience, the NRCS has developed and continues to improve upon the concept of Ecological Site Descriptions (ESDs), which help conservation planners and their clients understand the ecological relationships between the current state of the land and management scheme to other potential states including the "reference state" that existed before European colonization. This two-hour forum will show participants the value ESDs have in reconstructing and managing North America's prairie.

1:00 to 1:10 Introduction to the NRCS, James Cronin, State Biologist, Iowa NRCS, Des Moines, IA

1:10 to 1:20 James Cronin
Technical resources available to reconstruct and manage prairie

1:20 to 1:50 Kevin Kuhn, Resource Conservationist, Iowa NRCS, Des Moines, IA
Getting things done: Prairie reconstruction and management

1:50 to 2:20 Dr. Thomas Rosburg, Department of Biology, Drake University, Des Moines, IA
Ecological site data for Iowa's prairie ecosystems: An unprecedented guide for prairie restoration

2:20 to 2:50 Curt Bradbury, State Biologist, North Dakota NRCS, Bismarck, ND
Ecological Site Descriptions and their value in reconstructing and managing prairie

2:50 to 3:00 James Cronin, Questions and Answers