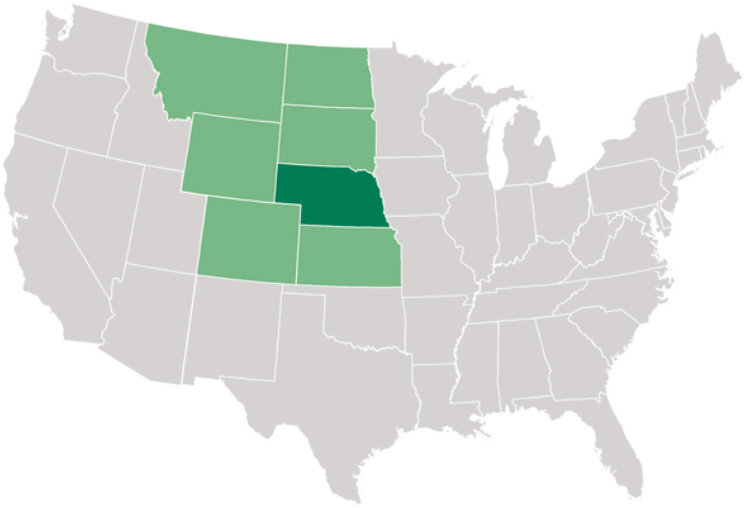
NEBRASKA

NORTH CENTRAL
Climate Adaptation
Science Center

North Central CASC Consortium Institutions

Host: University of Colorado Boulder

- Colorado State University
- Great Plains Tribal Water Alliance
- South Dakota State University
- The Nature Conservancy
- University of Montana
- University of Wyoming



Key Science Topics

- Fish & Wildlife
- Grasslands & Plains
- Freshwater
- Drought
- Science Tools for Managers

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CASC Network

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NEBRASKA

Project Highlights

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Protecting Vulnerable Grassland Birds from Climate Change

America's prairies, home to beloved birds such as meadowlarks and mallards, are under threat from human development and climate change. Climate change occurs quickly in flat, low-lying areas, meaning that heat waves, droughts, and extreme weather events have become the new norm for many prairies in the central U.S. This also means that grassland birds, which rely on grasslands for habitat, are particularly vulnerable to climate change.

WHAT: The North Central CASC is synthesizing the available information on the vulnerability of grassland ecosystems and grassland-dependent migratory birds to climate change across the Central Flyway.

RESULTS: How conditions are changing, and how fast, varies dramatically across the region. While some parts of the Central Flyway are experiencing a mega-drought, others are facing unprecedented flooding, record-breaking heat, or strong winter storms.

IMPACT: To help cut through the complexity of climate impacts, the team is developing a Grassland Adaptation Menu of conservation strategies for grassland birds. The menu has already been implemented by The Nature Conservancy to plan new strategies for their properties in the region.

Invasive Species & Climate Change Management Network

Maintaining healthy mule deer herds not only supports ecosystems, but also hunting and wildlife watching communities. For example, big game hunting contributes an estimated $324 million to Montana's economy each year. Yet as climate conditions change, the quantity, quality, and timing of vegetation available to big game could shift.

WHAT: The North Central CASC established the "North Central Regional Invasive Species and Climate Change (RISCC) Management Network" to focus on the intersection of invasive species, fire regimes, and climate change in the region. The team is identifying which species and ecosystems in the region are most threatened by invasive species, which invasives will be most important to manage in a changing climate, and how wildfire, climate, and invasive plants interact and result in ecosystem change.

IMPACT: By translating and synthesizing the science behind invasive species, fire, and climate change, the RISCC Network will contribute to the conservation and management of key ecosystems in the region including sagebrush steppe and grasslands.