

2019 WETLAND TREASURES OF THE CAROLINAS



BLUFF MOUNTAIN FEN WETLAND TYPE:

Southern Appalachian Fen

Photos by Steve Orzell

ECOLOGY & SIGNIFICANCE

The Bluff Mountain Fen is a 2.5 acre high elevation Southern Appalachian Fen (~4,400 ft asl), located in The Nature Conservancy's Bluff Mountain Preserve (800 acre), in Ashe County, NC. This globally rare wetland type is only known to exist at this location in the Southeast United States. The Fen is located on a 25 acre high plateau and fed by a number of springs and seeps forming a headwater catchment to the New River.

An unusual combination of circumstances led to the development of Bluff's fen - a high plateau with a shallow depression, a hard bedrock that resists erosion, extreme climate, and a constant supply of nutrient-rich water draining from the upper slopes of Bluff's main ridge. These extreme fen conditions have probably prevented the invasion of shrubs and trees, and have fostered the development of at least 13 distinct herbaceous plant communities.

FLORA & FAUNA

Over 140 species of vascular plants and mosses have been recorded from the fen, including more than a dozen species considered rare or endangered in North Carolina. Northern fen species reaching their southern limit intermingle with southern species reaching their northern limit - a unique association.



Flowering Indian Paintbrush at the Fen's fringe.

Ecosystems surrounding the Fen include an intact Carolina Hemlock Forest, a dwarf red oak - white oak forest, and a rare Flat Rock plant community that supports the world's only known population of Bluff Mountain reindeer lichen.

THREATS

Threats to high elevation bog and fen wetland types include timber harvesting, road construction, and cattle grazing. All three can impact wetland hydrology and disrupt natural community structure. The Bluff Mountain Preserve was acquired by The Nature Conservancy in 1987 and the intact Fen has been subject to minimal management since that time. Because of this, the Bluff Mountain Fen offers a unique opportunity for scientists to study natural fen hydrology and its responses to ecosystem succession and climate change.

ACCESS

Given the unique communities present at the Preserve and abundance of rare plants, the site may only be accessed via guided hikes from May to October. The Nature Conservancy's Ashe County Steward, Kelly Clampitt, coordinates scheduled hikes. Please visit the Bluff Mountain Preserve [website](#) for information on scheduling a hike.

SOURCES

The Nature Conservancy

BLUFF MOUNTAIN FEN

Property Owner: The Nature Conservancy, Bluff Mountain Preserve
Recognitions & Designations: Globally Rare Wetland; NC Unique Wetland
(NC Natural Heritage Program)