Wildlife Conservation Land Priority Habitat Management Guidelines

Small Wetland Communities

Protected species associated with small wetland communities across North Carolina include Eastern tiger salamander, four-toed salamander, Carolina gopher frog, dwarf salamander, mole salamander, & star-nosed mole. Rare species include ornate chorus frog, Southern bog lemming, Mabee's salamander, oak toad, glossy crayfish snake, black swamp snake, Northern gray treefrog, & alder flycatcher.

North Carolina Wildlife Resources Commission

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Habitat Description

Small wetland communities can include vernal pools, seeps, small depression ponds, ephemeral wetlands, beaver ponds, small depression pocosins, interdune ponds, clay-based Carolina bays, limesink depressions, bogs and associated wetlands.

Many of these communities are found only in a specific geographical region of the state. All are associated with hydric (saturated) soils, hydrophilic (moisture-loving) vegetation, and in general with the presence of water on the surface for at least some portion of the year.

By definition these wetlands are small in size, but may be extremely important in wildlife value and benefit. The wildlife that utilize these wetlands also rely heavily on the adjacent upland habitat as well. The evaluation of each small wetland community should therefore consider not only the land area representing the wetland, but also the surrounding area of influence associated with the wetland.

Threats to the Resource

From the coast to the mountains, wildlife species that depend on small wetland communities can be negatively impacted by human activity in a number of ways.

Direct habitat loss is caused when wetlands are drained for agriculture or development. Indirect loss can occur from factors associated with land use changes within the area of influence.

Water quality problems can occur from stormwater runoff and pollution from point and non-point sources (lawn chemicals, oils from road surfaces, agricultural and forestry pesticides). Excessive drying and negative hydrological changes can occur when timber is harvested too close to a wetland or ditches are cut through wetlands.

Roads built near wetlands can cause heavy mortality for reptiles and amphibians and can effectively isolate breeding populations, or separate wetland habitats from upland habitats that are used during non-breeding portions of amphibian and reptile life cycles.

Careless and excessive use of all terrain vehicles (ATVs) and other recreational vehicles can cause significant damage around wetland communities by either direct mortality to animals using the wetland or through increased sedimentation caused by soil disturbance and erosion. Noise from ATVs may disrupt or prevent animals from carrying out their normal seasonal activities.

The introduction of fish, bullfrogs, and other predatory species can devastate the breeding effort of amphibians in small wetlands and is not allowed.

Some mountain bogs are at risk from ongoing forest succession. These bogs that formerly provided either open or mixed open and shrubby habitat have grown up in trees and can no longer provide suitable habitat for mountain bog wildlife.

Management Strategies – Wildlife Conservation Land Program (WCLP)

Each type of qualifying small wetland community may have its own set of problems that pose a risk to the habitat and its wildlife. Landowners interested in enrolling in the WCLP will need to obtain a site evaluation from a qualified professional. Once an assessment has been completed, specific recommendations can be developed to protect and / or restore the wetland.

If deemed necessary, wetland restoration efforts should focus on restoring the natural hydrology, water quality, and plant communities of degraded wetlands. Technical expertise and cost-share funding may be available from various agencies to assist with restoration efforts. Newly created wetlands will also be considered under the WCLP.

Active management may be periodically required to restore the open nature of some small wetland communities. For example, the use of fire in coastal wetlands or the use of a hand crew to manually cut down encroaching woody vegetation with chainsaws or brush blades in mountain bogs. Any use of approved herbicides and surfactants must be of low toxicity to aquatic wildlife.

Disturbance and negative land use activities adjacent to the wetland reduces the value of the area to wildlife and can negatively impact the wetland system. A buffer around the wetland habitat will be needed to ensure continued viability of the wetland. Landowners must be willing to institute appropriate restrictions upon the use of the acreage within the buffer. Information relative to the amount of buffer needed is available from the WRC.

Conservation easements are strongly encouraged to help permanently protect remaining wetlands.

This and other priority habitat types are listed as habitats of concern in the North Carolina Wildlife Action Plan (NCWAP) and more detailed information concerning each habitat type may be found at www.ncwildlife.org/fs_index_07_conservation.htm.