

Mountain Bogs



U.S. Fish and Wildlife Service, Asheville, North Carolina

What are Bogs?

Bogs are what most people would call “swampy” spots. They are saturated with water for most of the year, and many have thick layers of sphagnum moss underlain by deep layers of peat and black mud. The word “bog” is of Gaelic origin and refers to something soft and spongy, as the ground in our bogs usually is. In our mountain area, most of these wetlands are acidic.

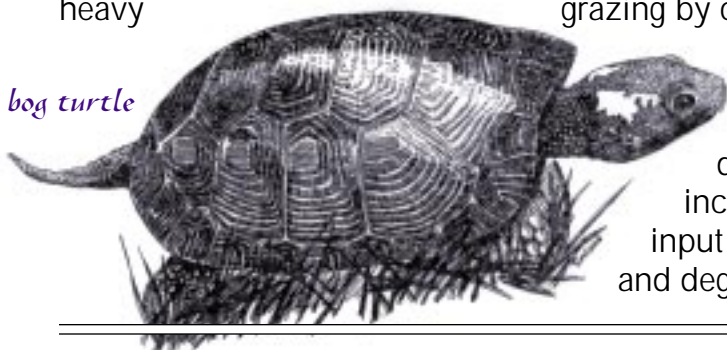
Individual bogs have different types of vegetation, but some of the interesting plants that can be found in them include peat moss (sphagnum), cinnamon fern, royal fern, bog laurel (a smaller and rarer relative of mountain laurel that has dark pink flowers), wild azaleas, golden club, cranberries, orchids, carnivorous plants, bulrushes, and sedges. Shrubs such as rhododendron, alder, red maple, and meadowsweet (spiraea) are often found around the edges and sometimes within the bogs.

How are Bogs Created?

The origins of bogs are not well known. Some are extremely old, dating back 11,000 years or more to the last ice age.

Bogs are usually found on fairly flat terrain, where, for various reasons, water enters the system faster than it leaves. The reasons for this can be related to topography, geology (a layer of clay or other water-tight material underneath the bog), or climate.

Some speculate that beavers may have played a role in creating bogs. Natural disturbances, such as fire, grazing by native herd animals, or clearing by native Americans, also may have contributed to their maintenance. Recent modifications such as heavy grazing by cattle and other



bog turtle

livestock, ground water pumping, surface water diversion, and increased nutrient input are now changing and degrading many bogs.

Why are Bogs Important?

In spite of the fact that many people have been wrongly taught that wetlands are “wastelands,” bogs and other wetlands serve many valuable functions for people and wildlife. Bogs, like other wetlands, act as natural water purification systems, filtering out silt and absorbing many pollutants. These wetlands also function as natural flood control mechanisms; floodwaters are slowed and held, then slowly released into the streams below without causing erosion or other damage.

Bogs and other wetlands provide food and shelter for many important game species, including such furbearers as mink, muskrat, raccoon, and beaver, and such gamebirds as rails, woodcock and waterfowl. In winter, bogs are a source of fresh green food for turkey and grouse when plants in drier areas have withered. Wetlands, rich in nutrients, form the first step in many food chains. Even small bogs, most of which are located on the headwaters of trout streams, contribute to the productivity and high water quality needed by the fish downstream.

These mountain wetlands are also important to many songbirds, providing breeding and wintering habitat and serving as migratory stopover points.



woodcock



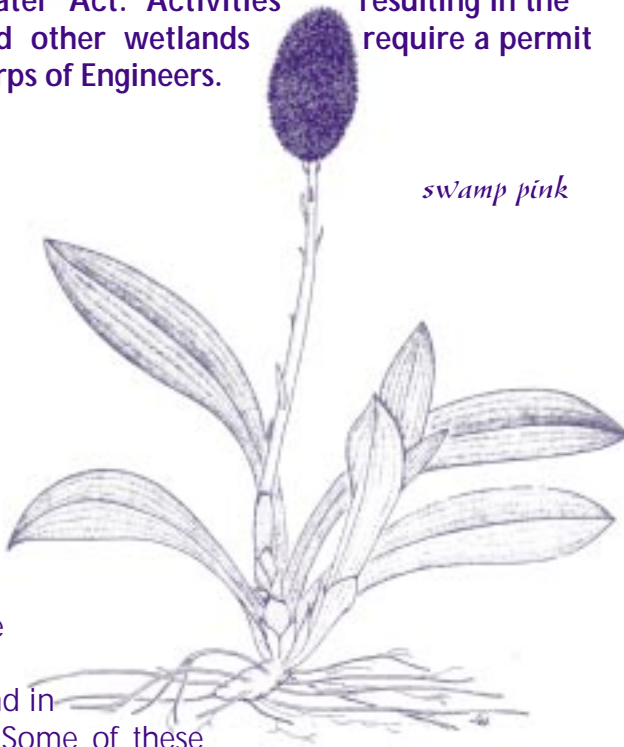
green pitcher plant

Are Bogs Legally Protected?

Because bogs are wetlands, they are protected and regulated under the federal Clean Water Act. Activities resulting in the alteration of bogs and other wetlands require a permit from the U.S. Army Corps of Engineers.

Rare and Unique Species Live in Bogs

At least one third of the nation's threatened or endangered species live in wetlands. Southern Appalachian bogs, in particular, support a wealth of rare and unique life forms, many of which are found in no other habitat type. Some of these include gorgeous orchids, plants that eat insects, beautiful and unusual lilies such as the swamp pink and Gray's lily (which serves as a nectar source for hummingbirds), and several species of wild azalea. Other rare and unusual inhabitants of bogs include species such as the bog turtle and two small mammals known as the bog lemming and the water shrew. In North Carolina alone, bogs are habitat for over 90 species of plants and animals that are considered rare, threatened or endangered by the North Carolina Plant Conservation Program, the North Carolina Natural Heritage Program, the North Carolina Wildlife Resources Commission or the U.S. Fish and Wildlife Service.



swamp pink

For further information, contact:

U.S. Fish and Wildlife Service
330 Ridgefield Court
Asheville, NC 28806

North Carolina Wildlife Resources Commission
512 N. Salisbury Street
Raleigh, NC 27604

The Nature Conservancy
North Carolina Field Office
Carr Mill Suite 223
Carrboro, NC 27510

North Carolina Plant Conservation Program
P.O. Box 27647
Raleigh, NC 27611

U.S. Army Corps of Engineers
37 Battery Park Avenue
Asheville, NC 28801

grass-pink
(a wild orchid)



What You Can Do to Help Protect Bogs

An estimated 5,000 acres of bogs were once found in North Carolina. Today, only about 500 acres remain—most in poor or threatened condition. Many landowners have no idea of the treasures they possess. Some drain, fill, flood, or otherwise destroy these delicate habitats without ever knowing what wonderful things lived there.



Gray's lily

To protect bogs, it is very important not to alter the hydrology (water flow patterns) of the area. Culverts, ditches and other drainage devices destroy bogs and their unique species. It is also important to leave at least a buffer of vegetation around bogs, to maintain natural water flow patterns and decrease siltation from adjacent slopes.

If you have a wet area on your property that you think might be a bog, contact a biologist for verification and management assistance. Not all wet areas are bogs, of course, but small and seemingly insignificant wetlands often contain some of the world's rarest creatures. Spread the word to your neighbors. Teach your children that wetlands are not wastelands.



bog lemming

