

## Vegetation Management Section

### Maintenance Programs

#### Threatened & Endangered Plant Species

##### **NCDOT - Rare Plant Species**

Plant and animal species that are in danger of becoming extinct within the foreseeable future are listed by the U.S. Fish and Wildlife Service as federally threatened or endangered. The continued survival of these species is jeopardized by habitat degradation, environmental pollution, and the introduction of exotic species and exploitation. The Endangered Species Act of 1973 protects these species from such actions that may harm or destroy them or their habitat.

In North Carolina, endangered species such as Smooth Coneflower, Schweinitzii's Sunflower, Michaux's Sumac, Rough-leaved Loosestrife and Cooley's Meadowrue often occur along roadsides and in powerline rights-of-way. These species occur naturally in habitats that were once dominated by fire. Due to human intervention, fire is no longer a regular part of these ecosystems. Now, roadsides and powerlines that are regularly maintained by mowing mimic fire maintained ecosystems.

Currently the North Carolina Department of Transportation protects over 200 populations of rare plant species growing along its roadsides. Most of these plants are listed as federally threatened or endangered by the U.S. Fish and Wildlife Service (USFWS). Others are listed as significantly rare in North Carolina. The North Carolina Department of Transportation works with the U.S. Fish and Wildlife Service, the North Carolina Natural Heritage Program and the North Carolina Plant Protection Program as well as different utility companies to protect these roadside and powerline populations of rare species. Endangered plant populations are marked with white-topped wooden stakes, an indication to mowers that the area is off limits during the growing season. These areas are managed on a site by site basis according to their individual needs. Management strategies to control invasive woody vegetation include mowing during the dormant season, hand pruning and prescribed fire. Effective communication is crucial to the success of this program. Protecting these rare species involves a variety of individuals from environmental biologists and horticulturists to environmental engineers and roadside maintenance personnel.

We all have a responsibility to protect rare species in order to maintain natural diversity. Rare species have proven to be valuable to humans for their medicinal and agricultural uses. Many rare species also serve as environmental monitors. It is important that we all do our part to protect North Carolina's unique natural heritage.