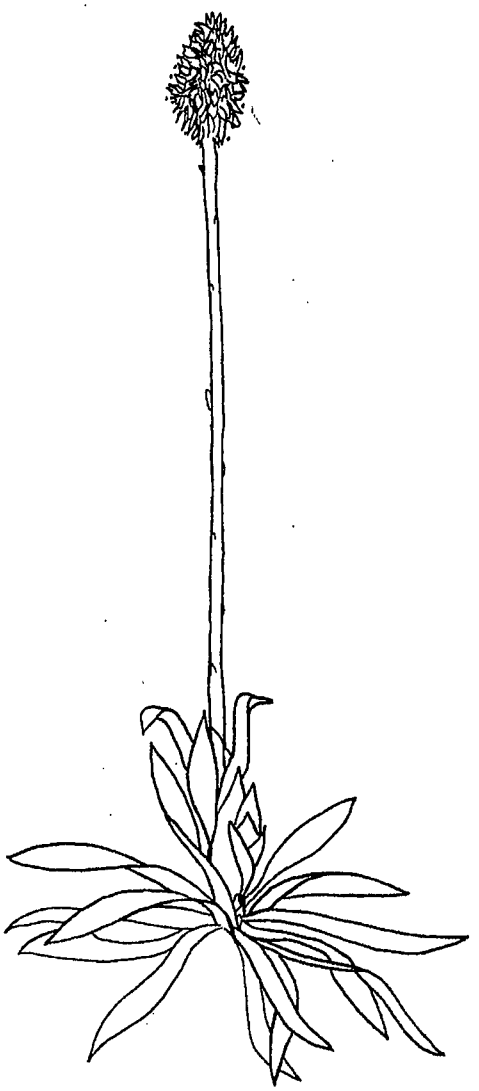
Swamp pink

Swamp pink (*Helonias bullata*) was federally listed as a threatened plant species on September 9, 1988, pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). New Jersey contains the majority of the remaining populations of the species; however, not all of the potential swamp pink habitats in New Jersey have been surveyed. The U.S. Fish and Wildlife Service (Service) requests that a qualified biologist conduct a comprehensive search for swamp pink in any potentially suitable wetland habitat, as described below, that may be impacted by project activities. The following information is provided to assist in identifying the species and its habitat and to describe recommended survey techniques.

IDENTIFICATION: Swamp pink is characterized by a bright pink flower cluster that blooms in early spring. The stocky, hollow flower stem grows from one to three feet tall and has sparse modified leaves along its length. In April or early May, the stem is topped by a cluster (approximately one to three inches long) of pink flowers dotted with pale blue anthers. However, only 10 to 15 percent of the plants in a population typically flower in any one season. When the plant is not flowering, swamp pink can be identified by its smooth, evergreen, lance-shaped leaves (approximately 3 to 10 inches long), which lie almost flat on the ground in a basal rosette. The leaves are shiny green when young and often attain a purplish tint in mature plants. In New Jersey, the plant is easiest to identify when in bloom or in the winter months when few other herbaceous plants are still green. Population sizes may vary from a few to several thousand plants.



HABITAT: Considered an obligate wetland species, swamp pink occurs in a variety of palustrine forested and scrub/shrub wetlands in New Jersey including: forested wetlands bordering meandering streamlets, headwater wetlands, sphagnous Atlantic white cedar swamps, and spring seepage areas. Specific hydrologic requirements of swamp pink limit its occurrence to wetlands that are perennially saturated, but not inundated by floodwater. The water table must be at or near the surface, fluctuating only slightly during spring and summer months.

Swamp pink is a shade-tolerant plant that occurs in wetlands with varying canopy closure. Plant species associated with swamp pink include: Atlantic white cedar (*Chamaecyparis thyoides*), red maple (*Acer rubrum*), pitch pine (*Pinus rigida*), American larch (*Larix lariciana*), black spruce (*Picea mariana*), red spruce (*Picea rubens*), sweet pepperbush (*Clethra alnifolia*), sweetbay magnolia (*Magnolia virginiana*), sphagnum mosses (*Sphagnum* spp.), cinnamon fern (*Osmunda cinnamomea*), skunk cabbage (*Symplocarpus foetidus*), and laurels (*Kalmia* spp.). Swamp pink often grows on hummocks formed by trees, shrubs, and sphagnum mosses, which indicates that these microtopographic conditions may be an important component of swamp pink habitat.

RANGE: Once found inhabiting wetland areas from New York to Georgia, swamp pink now occurs only along the coastal plain from New Jersey to Virginia and in small isolated bog areas in the Southern Appalachian Mountains. Containing more than 70 percent of the known sites, New Jersey represents the global stronghold for swamp pink. Plant colonies are found in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Middlesex, Monmouth, Morris, Ocean, and Salem Counties.

THREATS: Threats to swamp pink include: loss or degradation of habitat due to illegal filling of wetlands; sedimentation from off-site construction activities; introduction of excess nutrients or toxic chemicals (e.g., herbicides) into the water; and, changes in groundwater and surface water hydrology due to excavation, water withdrawal, and increased runoff from upstream development (causing flooding and erosion). Additionally, direct discharge from stormwater outfalls can increase the frequency, duration, and volume of flooding in swamp pink wetlands and adversely affect the species.

SURVEY REQUIREMENTS: Although surveys can be conducted year round, the Service recommends conducting surveys from late fall to early spring when the foliage of other plant species is reduced, making the evergreen foliage of swamp pink easier to detect. Random transect surveys are inappropriate since the species may be present in small wet pockets, which may be overlooked during the random transect method. All available suitable habitat within the project impact area should be surveyed, concentrating on forested wetland areas as previously described, with suitable hydrology. The surveyor should census not only the wetlands on the subject property, but also upstream and downstream wetlands. Please **do not** collect specimens or send plants or parts of plants to the Service for identification. Report the survey method used, the qualifications of the surveyor, and the results of the survey (including size of area surveyed, hours searched, aerial and/or ground photographs with index map, and wetland delineations) to:

U.S. Fish and Wildlife Service
New Jersey Field Office
927 North Main Street, Building D-1
Pleasantville, New Jersey 08232
Telephone: (609) 646-9310
Facsimile: (609) 646-0352

CONSERVATION AND PROTECTION: The Service's Swamp Pink Recovery Plan identifies permanent protection of at least 80 large populations. If you own property containing swamp pink or know of other landowners who would be interested in permanently protecting this species, please notify the Service for additional information and assistance.