

DNR Fact Sheet: RARE SPECIES HABITAT

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Wildlife and Heritage Service
Natural Heritage Program
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The Department of Natural Resources (DNR) tracks the status of over 1,100 native plants and animals that are among the rarest in Maryland and most in need of conservation efforts as elements of our State's natural diversity. About half of these (455 plants and 152 animals) are officially listed by DNR as Endangered, Threatened, In Need of Conservation, or Endangered Extirpated. Conservation of these species requires protecting and properly managing the remaining habitats of these species and the ecological systems they depend on for survival.

Since the time of European colonization, more than 500 species and subspecies of native animals and plants have become extinct in North America. Some of these had been abundant in the Chesapeake Bay region. Passenger pigeons blackened the sky during migration, Carolina parakeets roosted in coastal swamp forests, and heath hens boomed on rolling grassland hilltops. Although Maryland harbors a rich variety of plant and animal life, the populations of many species have declined since colonization and over one hundred have been extirpated, including small-whorled pogonia, chaffseed, gray wolf, and American bison.

DNR and its conservation partners save rare species habitats through a number of avenues, including fee simple acquisition, donation and acquisition of conservation easements, landowner incentive programs, and providing technical assistance to landowners, developers, and other government agencies.

Since 1980, DNR's Natural Heritage Program (NHP) has been collecting, managing, analyzing, and distributing spatial data regarding the habitats of the state's rarest plants and animals, as well as high quality and rare natural communities and other living resources of conservation value. Currently, the NHP has developed a number of digital geospatial data products designed for somewhat different purposes and different target audiences. Natural Heritage Areas, Habitat Protection Areas, Ecologically Significant Areas, and Sensitive Species Project Review Areas are examples of products developed for various protection-related uses. Two of the most commonly used data products are:

Sensitive Species Project Review Areas (SSPRA)

This publicly available GIS polygon layer was developed with the intention of providing a geographical representation of the majority of the resources of concern to NHP, both regulated and unregulated, to a diverse audience. This layer provides an overview of general areas containing sensitive living resources, all within a single layer. While this layer can be used for a broad range of purposes, the primary intended uses of the SSPRA layer is for reviewing potential land-use changes for possible impacts to sensitive

resources, screening proposed development projects for potential impacts to sensitive resources, and for generalized, landscape-scale or statewide analyses for the conservation of these resources. This layer is not well suited for other uses, such as local conservation and protection planning projects or parcel targeting for easements, acquisitions, or restoration activities. Sensitive resources encompassed within the SSPRA include the Ecologically Significant Areas (which are the habitats of rare, threatened and endangered species and significant natural communities, as described below), protection zones for bald eagle nests and colonial waterbird breeding colonies, Delmarva Fox Squirrel habitat, and Natural Heritage Areas. This layer does not, however, specifically include Waterfowl Concentration and Staging Areas (WCSA) or Potential Habitat for Forest Interior Dwelling Species (FIDS). The SSPRA layer can be viewed online at www.mdmerlin.net or it can be downloaded from DNR's Geospatial Data Center (<http://dnrweb.dnr.state.md.us/gis/data>).

Ecologically Significant Areas (ESA)

The ESA layer is a more refined GIS product than SSPRA. It was developed for more specific proactive protection and conservation purposes than for the reactive purposes (e.g., environmental review) and the generalized range of purposes for which the SSPRA layer was designed. This product contains only a subset of the rare and sensitive resources of concern included within the SSPRA. It includes polygons for those rare species and natural communities that would be most effectively conserved through direct and targeted proactive conservation efforts. The ESA layer was developed with the intention of assisting NHP's conservation partners with their ongoing protection efforts, such as prioritizing acquisitions and the targeting of parcels for the purchase of conservation easements. This layer does *not* specifically contain all nest locations of Bald Eagles, and it also does *not* specifically contain all known habitat for Delmarva Fox Squirrels. However, some Bald Eagle nests and Delmarva Fox Squirrel habitat are coincidentally contained within ESAs that have been created for other sensitive resources. Because this layer is designed specifically for a targeted audience, a Data Sharing Agreement that outlines the specific uses of the product, as well as data distribution restrictions, is expected to be signed with NHP before the data will be made available on a statewide basis.

For more information about DNR's conservation efforts for rare species habitats or the GIS data products that are available, please contact Lynn Davidson at 410-260-8563 or send an email to ldavidson@dnr.state.md.us.