

Delaware's Unique Wetland Communities

Globally Rare, Incredibly Gorgeous, Ours to Preserve



Spotted Salamander
(*Ambystoma maculatum*)



Grass Pink Orchid
(*Calopogon Tuberosus*)



Peat-Land Fen
UWC Wetland Type

In Brief

In the early 1700's, Delaware was a state rich in wetlands, with about half of the state's land consisting of freshwater and saltwater wetlands. Today, due to development, increased demand for plant and animal food production, forestry, timber harvesting, lumber production, and sea level rise only about one quarter of the state's wetlands remain.

This remaining 25% contains 296,351 acres of both saltwater and freshwater wetlands. Nearly 18,000 acres or about 5% of these rare freshwater wetland communities are considered ecologically unique, and are known as Unique Wetland Communities (UWC).

There are seven categories:

1. Coastal Plain seasonal ponds
2. Inner-dune depression meadows
3. Peat-land fens wetlands
4. Piedmont stream valley
5. Bald cypress swamps
6. Atlantic white cedar swamps
7. Black ash seepage swamps

Why It Matters

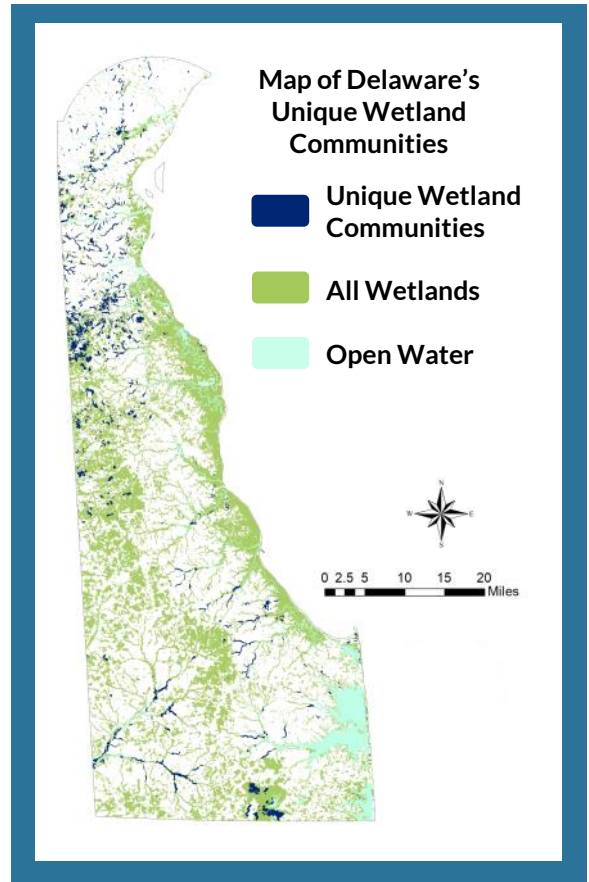
UWC are similar to most wetlands in the many beneficial functions and economic benefits to citizens they provide. What sets them apart and makes them extraordinary are the plants and animals that only grow and live in the particular soil, water, and landscape condition that these special wetlands provide. A variety of these species are considered either rare, threatened or endangered species, and a few of them only live in Delaware! UWC are sensitive and easily disturbed by adjacent land use activities such as development and agriculture.

Delaware's Unique Wetland Communities Quick Facts:

- Provide beneficial functions such as improved water quality, flood protection and erosion reduction
- Contain rare, threatened or endangered animal and plant life that only live in Delaware
- Are difficult to replace because of the delicate plants and animals that live in them
- Delaware has lost more than 1/2 of its freshwater wetlands since the 1700's
- There are 7 types of UWC (see reverse for list)

Current Status

Current federal regulatory protection does not take into account the rareness of UWC versus other wetlands—all wetlands are treated alike within the federal program. Many UWC are small in size and the federal regulatory program allows for disruptions to UWC ecosystems without consideration for the cost-saving beneficial functions of the wetland. UWC are difficult to replace and are valuable money-saving, ecological resources of the state that contain unique rare and threatened plants and animals.



Find out more about how you can give these wetlands a helping hand by visiting de.gov/wetlandtoolbox.

Types of Unique Wetland Communities



Atlantic White Cedar Swamp

These swamps are typically dominated by the tree Atlantic white cedar, but other leaf dropping tree species can also be present. Though the Atlantic white cedar tree is not rare in Delaware, the community that it creates is a habitat of conservation concern due to the rare species it supports. These habitats develop along the floodplains of streams, creeks and rivers on very poorly drained, organic, mucky soils.

Soils are very acidic and nutrient poor and a distinctive [hummock-and-hollow topography](#) is often found.

Bald Cypress Swamp

These swamps contain the bald cypress tree, which has a native range from Delaware to Florida, and west along the Gulf Coast to Texas. Delaware is the northern extent of natural bald cypress distribution in the United States, and is considered to be an uncommon species in the state. Bald cypress swamps are primarily found on forested floodplains of rivers and creeks that are temporarily and seasonally flooded, but can also be found in headwater depression swamps.

Black Ash Seepage Swamp

This unusual seepage swamp occurs in the upper reaches of tidal rivers and non-tidal streams in the northern third of Delaware's coastal plain. These swamps can be identified by very wet stream bottoms with nutrient rich soils and steep side slopes, where there is a strong flow of groundwater. Seepage swamps that are near tidal rivers, are situated above normal high tide levels and are only occasionally affected by extreme high tides and storm surges.

Coastal Plain Seasonal Pond

These wetlands are a unique type of shallow, seasonally-flooded, freshwater depressions. Generally oval to irregular in shape and often have a pronounced sandy rim along the southeast side. These wetlands are normally really wet in the winter and spring and dry in late summer and fall. They are most commonly found as open, sunny low-lying areas within forested uplands. The majority of these ponds are small (most are less than one acre in size), and mostly occurring in western New Castle and Kent Counties.



Inner-Dune Depression Meadow

These freshwater wetlands are restricted to the back or inner dunes of saltwater ecosystems. They develop in small, low lying areas where freshwater is supplied from groundwater and precipitation. Inner-dune depression meadows are normally really wet in the winter and spring and dry in late summer and fall. Soils have a shallow organic layer over sand. They typically are open and sunny, and support a diverse assemblage of grass, sedges and rushes, as well as many species of broadleaf herbs.

Peat-Land Fen

This wetland type occurs on deep, organic [peat](#) that is very acidic and nutrient poor in Delaware. Peat-land fens usually develop at the bottom of moderate slopes, where groundwater is forced up by impermeable clay soils. These wetlands have shallow standing water throughout the year. The vegetation is usually a mosaic of trees, shrubs, grasses, sedges and rushes. Peat-land fens can occur within stream corridors associated with Atlantic white cedar, and also at the edge of salt marshes adjacent to sandy slopes where there is acidic groundwater seepage.

Piedmont Stream Valley Wetland

These wetlands occur within stream valleys of the Piedmont region of northern New Castle County. These wetlands usually develop on floodplains of creeks and streams, often near the base of steep wooded slopes, and are usually wet year round. Soils are usually deep organic muck, but a firm gravel is often seen. These wetlands vary in size and position on the landscape, as well as in the degree of tree canopy coverage and the types of plants. They can be either sunny, with an open tree canopy, or shady with a closed tree canopy

For more information de.gov/delawarewetlands



@dnrecwetlands