The Great Swamp Whately and South Deerfield, Massachusetts

The Great Swamp has defied attempts to drain it during the last 300 years and remains the largest block of swamp-forest within the Connecticut River Valley in Massachusetts. Although only a few species of rare (state-listed) plants are known to occur here, the Great Swamp does contain a number of infrequently encountered plant species. Among them are Netted Chain Fern (*Woodwardia areolata*), a species more commonly found to the south or along the coast, and the shrub known as Shining Winterberry (*Ilex laevigata*), which is also seldom seen in our area. In the canopy layer, Swamp White Oak (*Quercus bicolor*) is a fairly common component.

Beyond plants, the Swamp is extremely important for wildlife, especially neotropical migratory birds returning in the spring. The swamp's trees leaf out earlier than the surrounding hills and the returning warblers and other birds are able to refuel on the caterpillars and other small insects feeding on the tree leaves. Because of its wildlife habitat values, size, unusual plant species and proximity to the Mill River, the Great Swamp is a priority for acquisition by the Massachusetts Division of Fisheries & Wildlife. Since 2000, MA DFW has acquired more than 200 acres.

Netted Chain Fern is one of the unusual species found in the Great Swamp. It is more typical in southeastern Massachusetts.

- **Water Quality in the Great Swamp**

Between 1997-2000, researchers from Smith College investigated the chemistry of the soils within the Great Swamp and Great Swamp Brook, a small channel created sometime during the 18th or 19th centuries. The research team found that west of Route 5, the groundwater is acidic, while east of Route 5 the water is much less so. The difference

appears to be linked to high concentration of de-icing salts used on Interstate 91, which bisects the swamp.