MARITIME SWAMP FOREST (CYPRESS SUBTYPE)

**Concept:** Maritime Swamp Forests are wetland forests of barrier islands and comparable coastal spits and back-barrier islands. The Cypress Subtype covers the rare examples dominated or codominated by *Taxodium distichum*, occurring in North Carolina only at Southern Shores and in Kitty Hawk Woods.

**Distinguishing Features:** The Cypress Subtype is distinguished from all other communities by the dominance of *Taxodium* in a nontidal, barrier island setting.

**Synonyms:** Synonyms: *Taxodium distichum / Cephalanthus occidentalis / Boehmeria cylindrica - Ceratophyllum muricatum* Maritime Swamp Forest (CEGL004079).

Ecological Systems: Central Atlantic Coastal Plain Maritime Forest (CES203.261).

**Sites:** This community occurs in well-protected dune swales.

**Soils:** Soils in the known examples are mapped as Conaby (Histic Humaquept).

**Hydrology:** The swales containing this subtype have fluctuating water levels that may be several feet deep for an entire season or may draw down and be unflooded but saturated. These swales are wetter than those supporting the Typic Subtype.

**Vegetation:** The forest is dominated by *Taxodium distichum*. A few other species may be codominant, especially *Acer rubrum*, probably var. *trilobum*. Other abundant trees may include *Liquidambar styraciflua*, *Pinus taeda*, *Nyssa biflora*, and *Fraxinus profunda*. The understory usually is not well developed. It consists of canopy species, frequently along with *Persea palustris* or *Capinus caroliniana*. Shrub cover is generally low. Species fairly frequent in CVS plots include *Morella cerifera*, *Eubotrys racemosa*, *Decodon verticillatus*, *Cephalanthus occidentalis*, and *Rosa palustris*. Vines are frequent and occasionally extensive, with *Parthenocissus quinquefolia*, *Muscadinia rotundifolia*, *Berchemia scandens*, *Smilax rotundifolia*, and *Toxicodendron radicans* frequent in plots. Herbs generally have low cover, may be confined to edges, and may vary in cover with water levels. Frequent herbaceous species in the plots are *Boehmeria cylindrica*, *Saururus cernuus*, *Mikania scandens*, *Osmunda spectabilis*, and *Peltandra virginica*. Also fairly frequent are *Galium tinctorium*, *Hydrocotyle prolifera*, *Hypericum virginicum*, *Limnobiuim spondia*, *Lorinseria areolata*, *Lycopus virginicus*, and *Persicaria hydropiperoides*.

**Range and Abundance:** Ranked G1. In North Carolina this community is known only in Kitty Hawk Woods and Southern Shores. A few more examples exist in Virginia.

**Associations and Patterns:** The known examples are small patches surrounded by Maritime Deciduous Forest.

**Variation:** Examples are somewhat heterogeneous in composition and are zoned by water depth.

**Dynamics:** Nothing specific is known about the dynamics of this subtype. Examples occur in well sheltered areas where salt water intrusion is unlikely under current circumstances.
Unlike most of the drier maritime communities, Maritime Swamp Forest may be susceptible to invasion by exotic plants. The dramatic invasion of a South Carolina example by *Triadica sebifera* (Conner, et al. 2005) demonstrates the potential for alteration. Though this species is more widespread to the south, and only sparsely present in North Carolina, the moderate climate of the barrier islands likely is suitable for it.

**Comments:** While it may be reasonable to question whether this subtype is more distinct than the variants within the Typic Subtype, the Cypress Subtype was recognized as the most distinct cluster in Wentworth, et al. (1990) and in Virginia Natural Heritage Program data analysis. The flora suggest it is wetter than the Typic Subtype. Maritime Shrub Swamp appears similarly wet, and it is unclear what ecological factors separate it from the Cypress Subtype. Dispersal limitation in the remote locations may be a sufficient explanation.

**Rare species:**

**References:**