

Ecological site F144AY043MA Acidic Organic Wetlands

Accessed: 05/03/2024

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Table 1. Dominant plant species

Tree	(1) <i>Acer rubrum</i> (2) <i>Chamaecyparis thyoides</i>
Shrub	(1) <i>Rhododendron viscosum</i> (2) <i>Clethra alnifolia</i>
Herbaceous	Not specified

Physiographic features

Climatic features

Influencing water features

Soil features

Ecological dynamics

The site consists of very deep, very poorly drained organic soils formed in more than 16 inches of highly decomposed organic material. Slope ranges from 0 to 2 percent. Soils are neutral to moderately acidic. Characteristic soils are Freetown and Swansea.

The site occurs within basins, depressions, swamps, seepage wetlands, fens, and kettlehole level bogs. These various hydro-geologic settings are the primary determinant of water regimes, water chemistry, plant community structure and floristics, and groundwater recharge and discharge relationships (Golet et al 1992). Consequently, the reference plant community of the site is variable. The site coincides with Atlantic white cedar forests (Metzler and Barrett 2006), Inland Atlantic white cedar swamp (Swain and Kearsley 2011), Atlantic white cedar bog (Swain and Kearsley 2011), red maple swamps (Swain and Kearsley 2011), highbush blueberry thickets, shrub swamp (Swain and Kearsley 2011), and shallow emergent marsh (Swain and Kearsley 2011).

Natural disturbances affecting the balance of species include fire, windthrow, ice damage, beaver activity. Anthropogenic disturbances such as the construction of drainage ditches, roads, and dams can have significant effects on the plant communities.

State and transition model

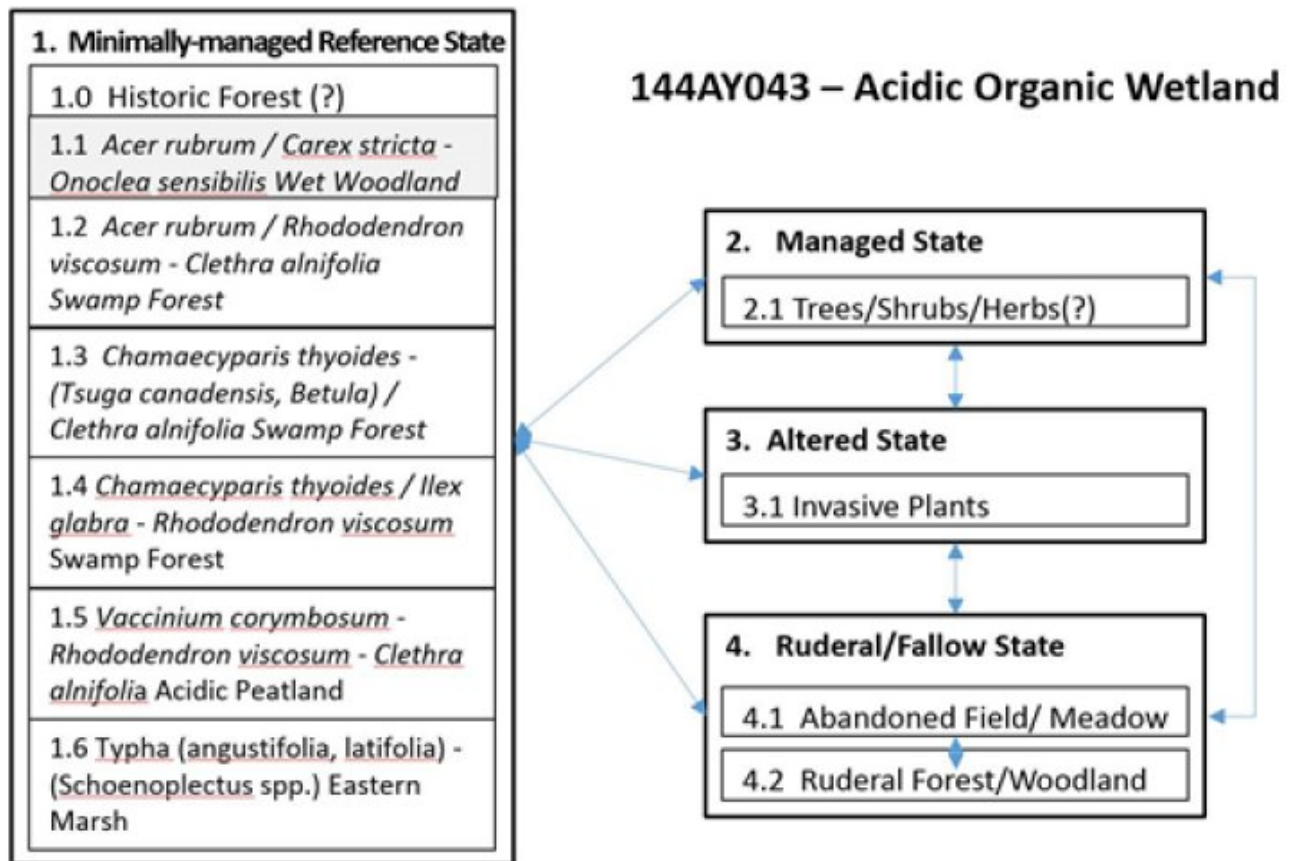


Figure 1. STM_144AY043_Acidic_Organic_Wetland

Transition	Drivers/practices
T1-2	Forest mgmt
T1-3, T1-4, T2-3, T3-4, T4-3	Disturbance/cutting/clearing, Brush removal
R2-1, R3-1, R4-1,	Restoration & Mgmt, Forest Stand Improvement, Upland Wildlife Mgmt
R3-1, R3-2	Brush removal, Herb weed control, Plant establishment
R4-1 CP4.1-4.2	Abandonment, succession
CP4.2-4.1	Restoration & Mgmt., Early Successional Habitat Development

Figure 2. STM_144AY043_Acidic_Organic_Wetland

Other references

REFERENCES

Edinger, G.J., Evans, D.J., Gebauer, S., Howard, T.G., Hunt, D.M., and A.M. Olivero, A.M. (eds.). 2014. Ecological Communities of New York State, Second Edition: A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

Enser, R., Gregg, D., Sparks, C., August, P., Jordan, P., Coit, J., Raithel, C., Tefft, B., Payton, B., Brown, C. and LaBash, C., 2011. Rhode Island ecological communities classification. Rhode Island Natural History Survey, Kingston, RI.

Enser, R. and Lundgren, J.A., 2006. Natural communities of Rhode Island. Rhode Island Natural History Survey, Kingston (RI).

Gawler, S.C. and Cutko, A., 2010. Natural landscapes of Maine: a guide to natural communities and ecosystems.

Maine Natural Areas Program, Department of Conservation.

Metzler, K.J. and Barrett, J.P., 2006. The Vegetation of Connecticut, a Preliminary Classification. Department of Environmental Protection, State Geological and Natural History Survey of Connecticut.

Sperduto, D.D., & Nichols, W.F. 2011. Natural Communities of New Hampshire, Second Ed. NH Natural Heritage Bureau, Concord, NH. Publ. UNH Cooperative Extension.

Swain, P.C. and Kearsley, J.B., 2001. Classification of the natural communities of Massachusetts. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife.

Thompson, E.H. and Sorenson, E.R., 2000. Wetland, woodland, wildland. Vermont Department of Fish and Wildlife and The Nature Conservancy. Publ. University Press of New England.

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

Dominant:

Sub-dominant:

Other:

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**

14. **Average percent litter cover (%) and depth (in):**

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:**

17. **Perennial plant reproductive capability:**
