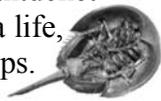




The Nature rail: A Self-Guided Tour

1) Welcome! The Nantucket Field Station is a 107-acre site donated to UMass Boston in the 1960s. The mission of the station is to provide educational and research opportunities to the Nantucket community and organizations both on and off the island.

2) Harbor & Barrier Spit: In the distance you can see the Coatue barrier spit, formed by wind, waves, and ocean currents. It protects Nantucket Harbor, which is home to a variety of sea life, including horseshoe crabs and bay scallops.



3) Beach Erosion: Even with the protection of a barrier sand spit, the bluff you are standing on is subject to erosion by pounding waves and wind. The sandy soils move easily, and waves throw cobblestones into the base of the cliff during intense storms. The onshore prevailing winds shape the trees.

4) The Ospreys: These birds are some of the most majestic inhabitants of Nantucket Island. To check whether you are seeing an osprey or a gull, note the osprey's wider tail and broader wings, and a high-pitched call characteristic of a bird of prey.

5) Red Cedars & Mowed Meadows: The tall red cedars (*Juniperus virginiana*) in the field have been deliberately left, trimmed only by white-tailed deer (*Odocoileus virginianus*) browsing in winter. On the borders of the mowed field, dotted with native goldenrods (*Solidago* spp.) and non-native thistles and daisies, are woody shrubs, including arrowwood (*Viburnum dentata*) and bayberry (*Myrica pensylvanica*).



6) Seeds & Clones: Most plants at the field station produce seed from "perfect" flowers that have both male and female parts. Yet you can find several prominent plants, including bayberry and American holly (*Ilex opaca*), that are dioecious, meaning that they produce separate

male and female plants. Many plants you see here also spread clonally. Blue flag (*Iris versicolor*), most grasses, and ferns spread by underground stem systems known as rhizomes.

7) Climbing Vines: 3 vine species dominate this area: fox grape (*Vitis labrusca*), Virginia creeper (*Parthenocissus quinquefolia*), with its 5 distinctive leaflets, and poison ivy (*Toxicodendron radicans*). They spread by twining around supports, clinging to them by tendrils or adhesive pads, or creeping along the ground.



8) Pond Flora: There is a distinctive plant community here. Cattails (*Typha latifolia*) and sedge species frame the pond. Swamp loosestrife (*Decodon verticillatus*) stems spread in graceful arcs at the pond margins. Look for the orange-stemmed parasitic dodder (*Cuscuta* spp.) wrapped around the loosestrife.



9) Pond Creatures: 18 of the 30 damselflies and dragonflies of Nantucket have been spotted at the field station. Look for the blue and black familiar bluet (*Enallagma civile*) on emergent rushes, and the large orange Needham's skimmer (*Libellula needhami*) along the pond shore. If you are lucky you may see the rare spotted turtle or a painted turtle.

10) Marine Creatures: Tides strand the remains of marine creatures in wrack lines on the beach. The height of the tide in any particular cycle determines where the wrack line will be formed. How many wrack lines can you count on the beach right now?



11) Folger's Salt Marsh: Salt marsh cordgrass (*Spartina alterniflora*) is the dominant species here. The burrows of the mud fiddler crab (*Uca pugnax*) aerate the peaty soil around this grass. Salt marshes are highly productive, and their yearly harvest of hay was once an important food for livestock.

