

Lichen diversity in the scrub oak and pitch pine communities, the maritime red cedar forests, the coastal heathland habitats and the coastal sand dunes of Nantucket Island and a preliminary exploration of the lichen diversity on Tuckernuck Island

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Project Summary

During the 2004 Nantucket Biodiversity Initiative the author (Kneiper, 2004) documented 89 lichen species in 37 genera during quick visits to 8 sites (Squam Swamp, Squam Farm, Coskata Point, the Great Point Lighthouse, Ram Pasture, Sheep Pond (FAA), the Town Cemetery and the Old North Cemetery). Sorrie and Dunwiddie (1996) reported 99 lichen species for Nantucket Island from historical records.

This proposal is a request to extend the Nantucket lichen inventory initiative of 2004 to: 1) scrub oak and pitch pine communities (Madequecham Valley & South Pasture); 2) coastal heathland habitats (the Middle Moors and Altar Rock); 3) maritime red cedar forests (Coscata and Coatue); and 4) coastal sand dunes (Eel Point 1 & Eel Point 2, Coatue and Great Point).

The purpose of this inventory work is to create lichen checklists for each community listed above as was done for the sites visited during the first Nantucket Biodiversity Initiative. This floristic work will document the lichen diversity in each community and increase the current species list for Nantucket Island. The lichen diversity for Nantucket Island will be compared with the lichen diversity on Nomans Land Island (Kneiper, 2005) and Martha's Vineyard (Keith, *et al* 2005).

In The Vascular and Non-Vascular Flora of Nantucket, Tuckernuck, and Muskeget Islands, Sorrie and Dunwiddie (Sorrie, 1996) list nine lichen species for the Tuckernuck Island. This lichen checklist was developed from the collections held by the Maria Mitchell Association and from Brodo's 1968 The Lichens of Long Island (Brodo, 1968) and Brodo's personal visits to the island. The lichen list for Tuckernuck is so exceptionally short that it undoubtedly under represents the lichens on the island. The lichen diversity already documented for plant communities found on the neighboring islands of Martha's Vineyard, Nantucket and Nomans Land Island. (Keith, 2005, Kneiper, *et al*, 1995, Kneiper 2004 and 2005) suggests that the actual lichen diversity for Tuckernuck may be comparable. This proposal is a request for funding for a three-day lichen survey of Tuckernuck to be dovetailed with the summer 2006 lichen work on Nantucket.