

The outwash plain or sandplains of Martha's Vineyard stretch from Wasque along the south shore of the island towards Long Point Wildlife Refuge. These properties contain excellent examples of rare sandplain communities: coastal heathlands, sandplain grasslands, and Scrub Oak barrens. Strong winds, salt spray from the ocean, sandy nutrient-poor soils, and disturbances such as fire and grazing have maintained a mosaic of these communities for thousands of years.



Eighteen thousand years ago, thick ice covered this landscape. When the glaciers melted, they deposited boulders, rocks, sand, silt, and clay along their terminal edge, creating a moraine which stretches from Long Island to Nantucket. Meltwater from these glaciers created streams which formed broad outwash sandplains.

Sandplain grasslands and heathlands are globally rare habitats. Only a few square miles of this habitat exist in the world. They depend on frequent disturbances to maintain their open character. With less frequent disturbances, Scrub Oak may dominate, creating Scrub Oak barrens. With fewer disturbances still, Pitch Pine, Post Oak, and other tree oaks mingle within these habitats, creating savannas, Pitch Pine barrens, and, finally, oak woodlands.

The Benefits of Fire

Disturbances such as prescribed burning maintain grasslands, heathlands, Scrub Oak barrens, and other sandplain habitats.



Sandplain Blue-eyed Grass

Without disturbances such as fire, tree oaks and Pitch Pine will slowly take over heathlands, grasslands, and other open sandplain habitats. When oaks and Pitch Pines invade, rare plants and animals dependent on open habitats cannot survive in the dense tree cover and leaf litter accumulation. The Trustees' Islands Ecology program actively monitors these habitats and their rare species protecting biological diversity for the future.



Bushy Rockrose and blueberry

What is a Prescribed Burn?

Prescribed burns are controlled fires used in habitat management. Roads, water, or mowed strips define fire lines around the edges of a burn unit. Humidity, wind, and temperature must fit within the "prescription" in order to burn. A trained crew then ignites the fire in controlled strips. Other crews contain the fire using hoses, tools, and by setting small fires along the fire lines.



Ignition of a burn using a drip torch

The Trustees of Reservations, in partnership with other organizations of the Sandplain Restoration Project--The Nature Conservancy, Sheriff's Meadow Foundation, M.V. Land Bank, and the State Forest--carry out prescribed burns island-wide to maintain and restore our rare island communities.

Sandplain Land-use History

Native Americans arrived here approximately 12,000 years ago. Since lightning-caused fires are rare in New England, we know most fires were set by Native Americans. A variety of plant communities existed, with more open vegetation types near Native American villages, where fires were most common.

Following European settlement, human disturbance shifted to large-scale land clearing for farming, forest products, and sheep grazing. At the turn of this century, sheep pastures were abandoned, and oaks and pitch pines invaded.

The Trustees of Reservations currently maintains and restores the open habitats of Wasque and Long Point Wildlife Refuge through prescribed burning and mowing. Each year we determine which areas to burn. Rotating when areas are burned allows plants and animals to return to previously burned areas.

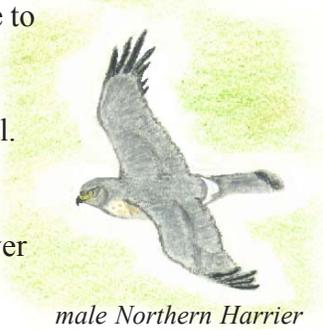
Who Lives in the Sandplains?

The sandplains are home to many rare plants and animals that depend on open habitats for survival.

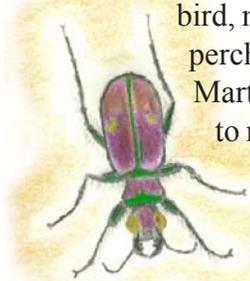
Northern Harrier and Short-eared Owl soar over the sandplain grasslands and heathlands. These birds of prey hunt for Meadow Voles, other rodents, small birds, and snakes. As these rare raptors fly overhead, Grasshopper Sparrows, another rare grassland bird, may call from a shrubby perch. The sandplains of Martha's Vineyard are also home to many invertebrate species.

Barrens Buck Moth, Gerhard's Underwing Moth, and Melsheimer's Sack-bearer all depend on Scrub Oak for food. Purple Tiger Beetles, a unique widow spider species, a northern species of tarantula, and unusual ant species also live in open sandplain habitats.

Within the grasslands and heathlands of the sandplains live several species of rare plants. Nantucket Shadbush exists only on Martha's Vineyard and Nantucket. Sandplain Blue-eyed Grass, Bushy Rockrose, Northern Blazing Star, and Sandplain Flax speckle the open sandplain habitats with color.



male Northern Harrier



Purple Tiger Beetle



Nantucket Shadbush

The Trustees of Reservations

Founded in 1891, The Trustees of Reservations is a member-supported nonprofit conservation organization which preserves, for public use and enjoyment, landscapes of exceptional scenic, historic, and ecological value in Massachusetts and works to protect special places across the state. Our reservations are tremendously diverse and include mountains and hilltops; forests and woodlands; river valleys and waterfalls; islands, coastlines, and barrier beaches; marshes, bogs and swamps; open fields and meadows; and farms, historic houses, designed landscapes, and gardens. On Martha's Vineyard, The Trustees owns and cares for Cape Poge Wildlife Refuge, Wasque, Mytoi, Long Point Wildlife Refuge and Menemsha Hills.

As a non-profit organization - not an agency of state government - we rely for support entirely upon membership dues, contributions, grants, reservation receipts, special events, and endowments. We enjoy the support of hundreds of volunteers and over 19,000 members who live in Massachusetts, other parts of New England and the USA, and several countries abroad. One million people visit our reservations each year. Join us and become a steward of the Massachusetts landscape! For membership information, please call (978) 524-1858.

Visit our Islands Region web site at www.vineyard.net/org/trustees.

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The Trustees of Reservations

Land-use History & Restoration Ecology of Rare Sandplain Habitats

