Backdune Wetlands
Swamps, Marshes, Fens, Open Water

Variety = Species Diversity

The dunes shelter a vast low-lying area with a variety of wetland habitats, each with its specialized plants that create habitat for a particular suite of animals. The concentration of different high-quality habitats found here produces one of the richest biological areas in New York State.

Aquatic (Open Water)

Watery habitats include streams and ponds. Some always open to the lake and others sometimes closed off by the dune barrier. Coontail and wild celery hide beneath the surface, while sweet white water lily and yellow pond lily float on the surface. In summer, the surface may be covered by duckweed, the smallest of all flowering plants.

Deep Emergent Marsh

Where surface water is a few inches to a few feet deep year-round, cattails dominate, with pickerelweed and bulrushes in deeper water at the edge of streams and ponds. In late summer and fall of some years, mudflats are exposed, and seeds in the mud spread into a tangle of short-lived plants. In other years, very high water or mudskippers may mill about or break up much of the cattails, creating better openings for breeding waterfowl and black terns. Water level regulation and invasive species have favored more stable water levels, thereby reducing mudflats and favoring over-expansion of cattails.

Shallow Emergent Marsh

On the end of the marsh, water rises in the spring to inundate the land from 6 inches to 3 feet deep by late spring, but usually drain out by late summer. Bluejoint grass and a variety of other grasses and grass-like sedges dominate. Tall wildflowers like Joe Pye weed and jewelweed stand out in the summer, among low shrubs like dogwoods and shrubbery willows.

Swamp

Swamps are wet areas dominated by trees or shrubs which form raised hummocks. Plants that grow beneath the trees vary from ferns to sedges, depending on water conditions in the hollows between trees. Swamps can include red and silver maples, black, and American elms. Shrub swamps are often a tangle of alder, bluebell, winterberry, and dogwoods.

Eastern Lake Ontario Wetland Plant Communities

Hydrology and water chemistry determine what plants will grow to form which kinds of wetland habitats. Hydrology is about water quantity, the timing and speed of its coming and going, and the source of the water (surface flow or groundwater). Water chemistry depends on where the water comes from, which determines the amount of fertilizer nutrients and minerals it carries.

Invasive Species

Invasive species are species (plants, animals, insects, etc.) that are not native to the ecosystem of interest and are likely to cause harm to the economy, environment, and human health in that area. Purple loosestrife is invading the back of the dunes and the wetlands. Eurasian watermilfoil, water chestnut, and spiny water flea are spreading in the aquatic habitats. Glossy buckhorn is expanding into the swamps and fens. Many invasives are found in the Great Lakes and their coastal habitats, with more coming in each year.

Coastal Fen

Coastal fens consist of plant communities growing above deep basins of peat. The plant mats that are sometimes floating are made up of tangled roots of grasslike sedges and low shrubs like meadowsweet and leatherleaf. Unique ice-planting plants grow here, including the sticky-leaved sundew and the vass-like pitcher plant. Another unique plant, the bog buckbean, is an important part of the life cycle of the state-endangered bog buckbean.

Eastern Lake Ontario Dunes, Wetlands, Creeks, and Ponds