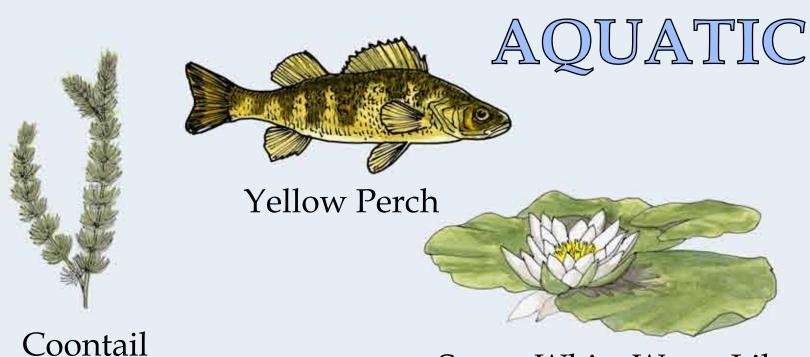


# BACKDUNE WETLANDS SWAMPS, MARSHES, FENS, OPEN WATER

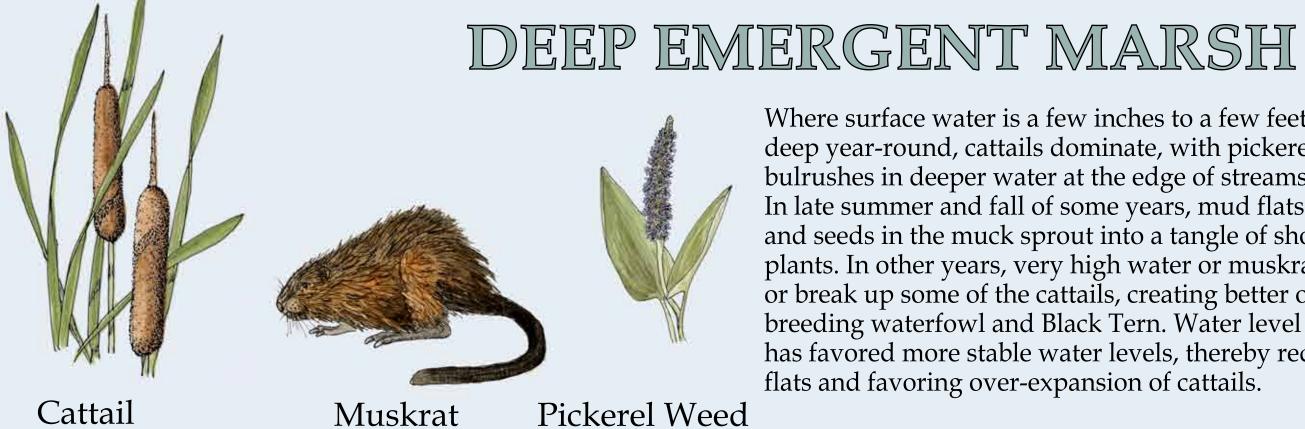
#### VARIETY = SPECIES DIVERSITY

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.

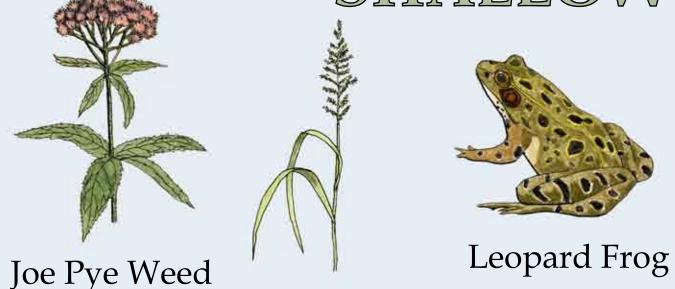


Watery habitats include streams and ponds, some always open to the lake and others sometimes closed off by the dune barrier. Coontail and wild celery hide beneath the surface, while sweet white water lily and yellow pond lily float on the surface. In summer the surface may be covered by duckweed, the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

Sweet White Water Lilv



Where surface water is a few inches to a few feet deep year-round, cattails dominate, with pickerel weed and bulrushes in deeper water at the edge of streams and ponds. In late summer and fall of some years, mud flats are exposed and seeds in the muck sprout into a tangle of short-lived plants. In other years, very high water or muskrats may kill off or break up some of the cattails, creating better openings for breeding waterfowl and Black Tern. Water level regulation has favored more stable water levels, thereby reducing mud flats and favoring over-expansion of cattails.



Red Maple

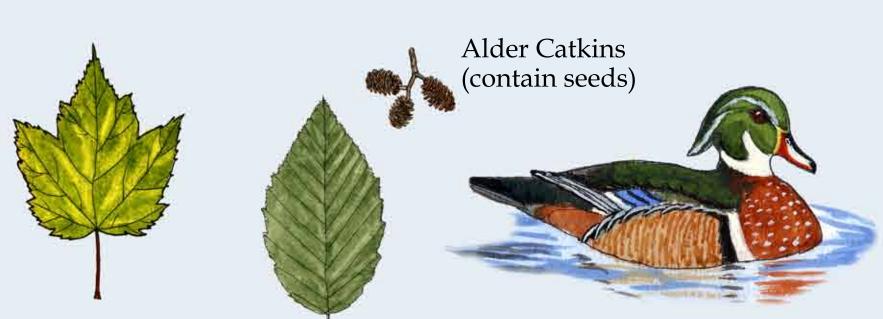
Bluejoint Grass

## SHALLOW EMERGENT MARSH

Upland of the deep marsh, water rises in the spring to inundate the land from 6 inches to 3 feet deep by late variety of other grasses and grass-like sedges dominate. Tall wildflowers like Joe Pye weed and jewelweed stand out in the

winterberry and dogwoods.

spring, but usually dries out by late summer. Bluejoint grass and a summer, among low shrubs like dogwoods and shrubby willows.



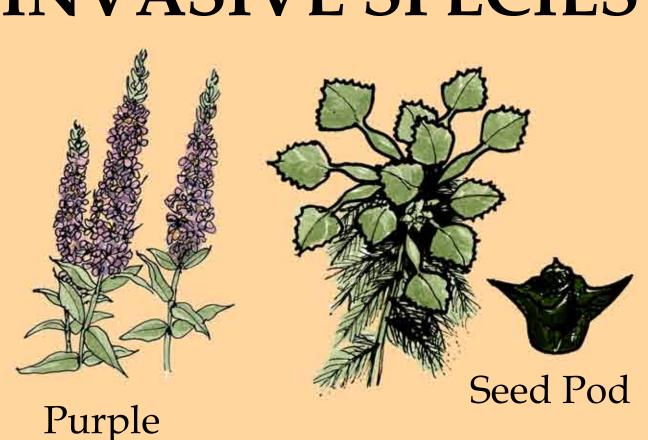
Wood Duck

Alder

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. Trees in swamps include red and silver maples, green and black ash, and American elm. Shrub swamps are often a tangle of alder, blueberry,

These thick shady swamps provide food and cover for breeding birds such as Wood Duck, Red-shouldered Hawk, American Redstart and Green Heron, and flocks of warblers during migration. Muskrats help shape the deep emergent marsh habitat by eating vast quantities of cattail roots. The state Endangered Black Tern builds a flimsy nest on lily pads in hidden Northern pike and other fish find the shallow emergent marsh habitat critical for spawning. Leopard frogs breed here as well, then migrate to drier lands in the summer. Lake Ontario Sandy Pond Beach Unique Area Aquatic vegetation in open water provides food and cover for bass, bullhead, and yellow perch. Snapping and painted turtles also live in these waters. Sandy Island Beach State Park Many amphibians and reptiles, including the spotted turtle, breed in the rare coastal fens. Deer Creek Wildlife Management Area Selkirk Shores

## **INVASIVE SPECIES**



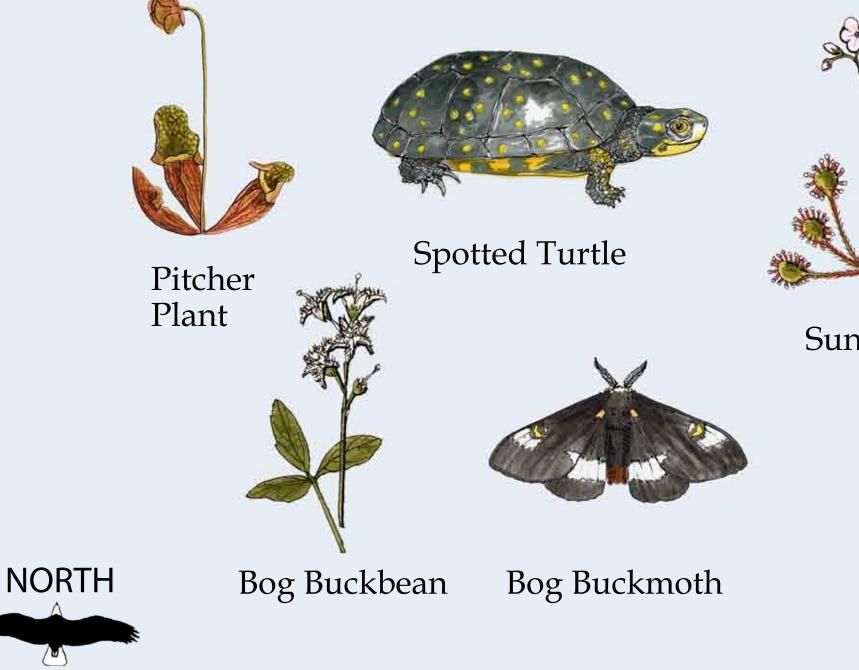
Loosestrife

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 buckthorn 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

Water Chestnut

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 sweetgale and leatherleaf. Unique insect-eating plants grow here, including the sticky-leaved sundew and the vase-like pitcher plant. Another unique plant, the bog buckbean is an important part of the life cycle of the state Endangered bog buckmoth.



### 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



Panels in this Series.

fertilizer nutrients and minerals it carries.

Eastern Lake Ontario Dunes, Wetlands, Creeks, and Ponds

This panel was developed through a partnership with New York Sea Grant, Great Lakes Seaway Trai The Nature Conservancy and Oswego County Soil and Water Conservation District.

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Pond Beach

er Creek Wildlife

Skinner Creek

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