



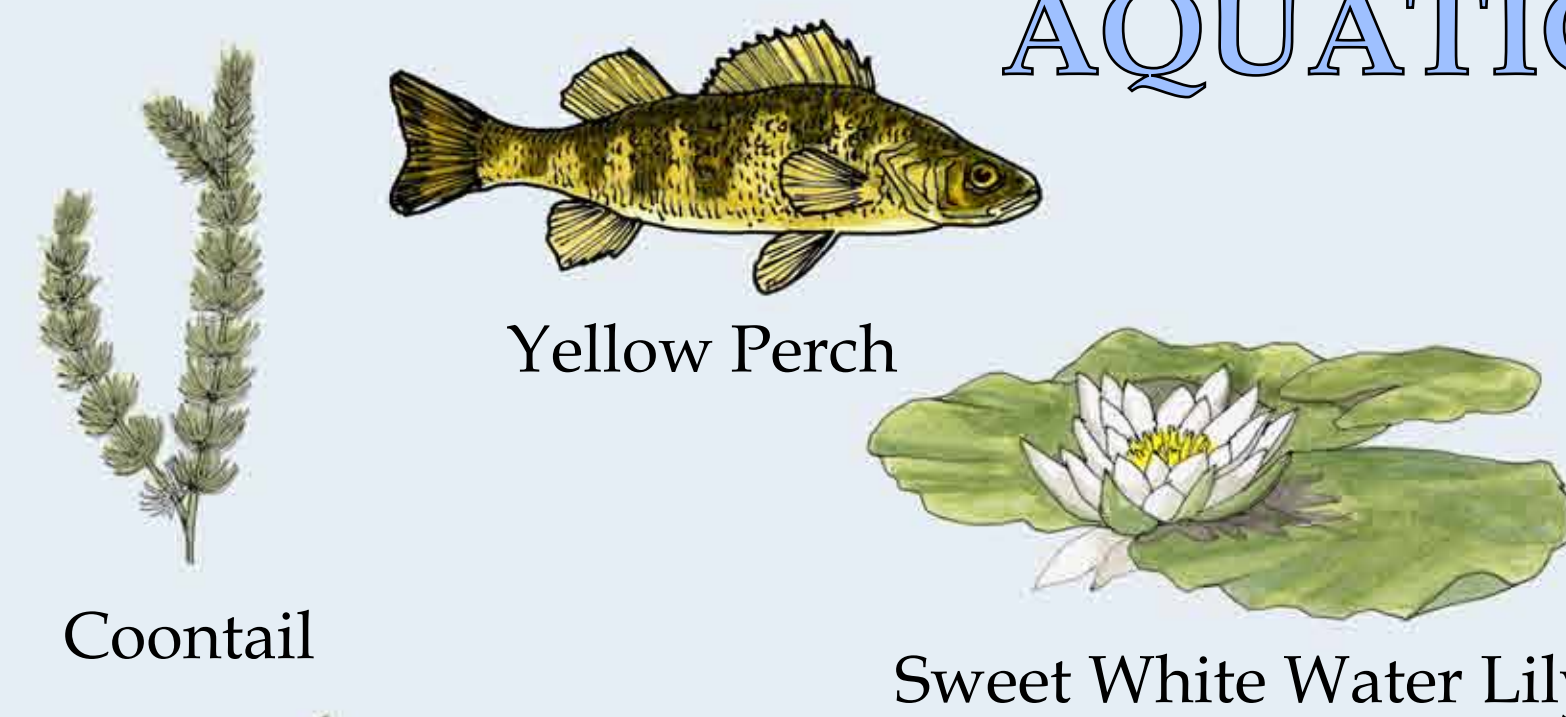
# BACKDUNE WETLANDS

## SWAMPS, MARSHES, FENS, OPEN WATER

### VARIETY = SPECIES DIVERSITY

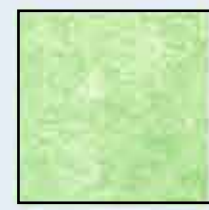
The dunes shelter a vast low lying area with a variety of wetland habitats, each with its specialized plants that create habitat for a particular suite of animals. The concentration of different high quality habitats found here produces one of the richest biological areas in New York State.

#### AQUATIC (OPEN WATER)



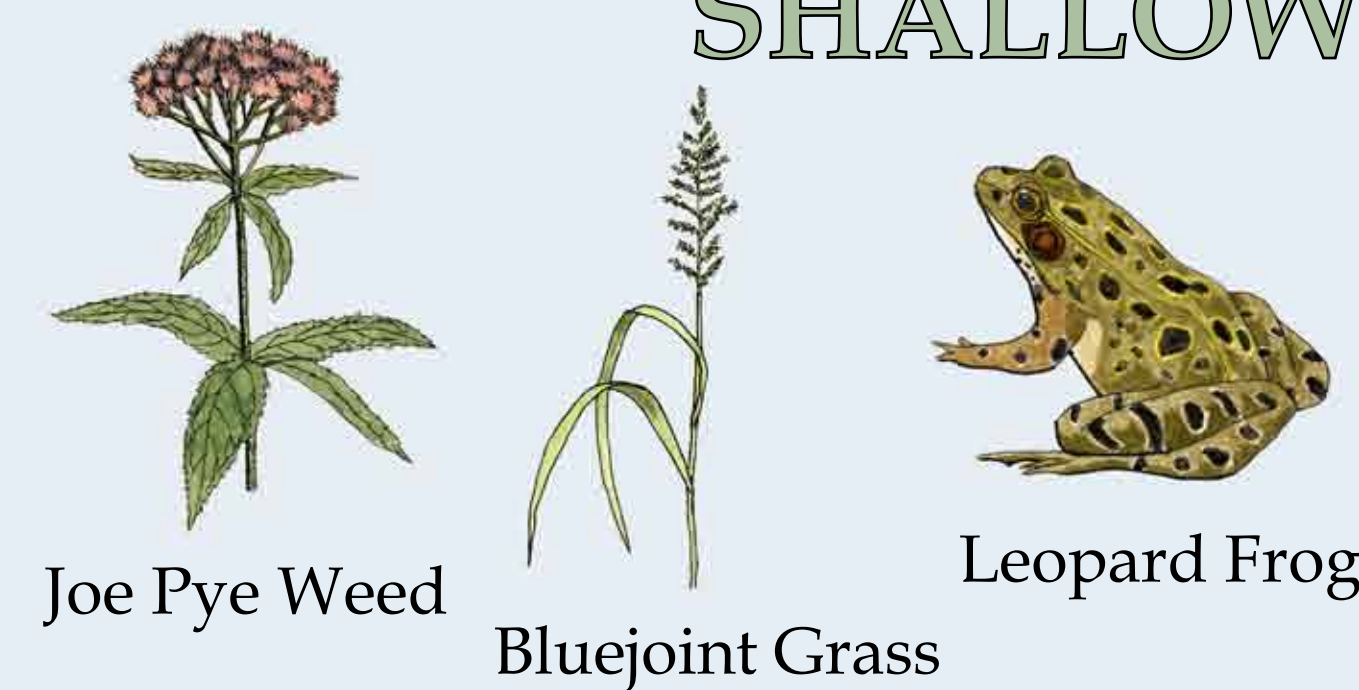
Watery habitats include streams and ponds, some always open to the lake and others sometimes closed off by the dune barrier. Coontail and wild celery hide beneath the surface, while sweet white water lily and yellow pond lily float on the surface. In summer the surface may be covered by duckweed, the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

#### SHALLOW EMERGENT MARSH

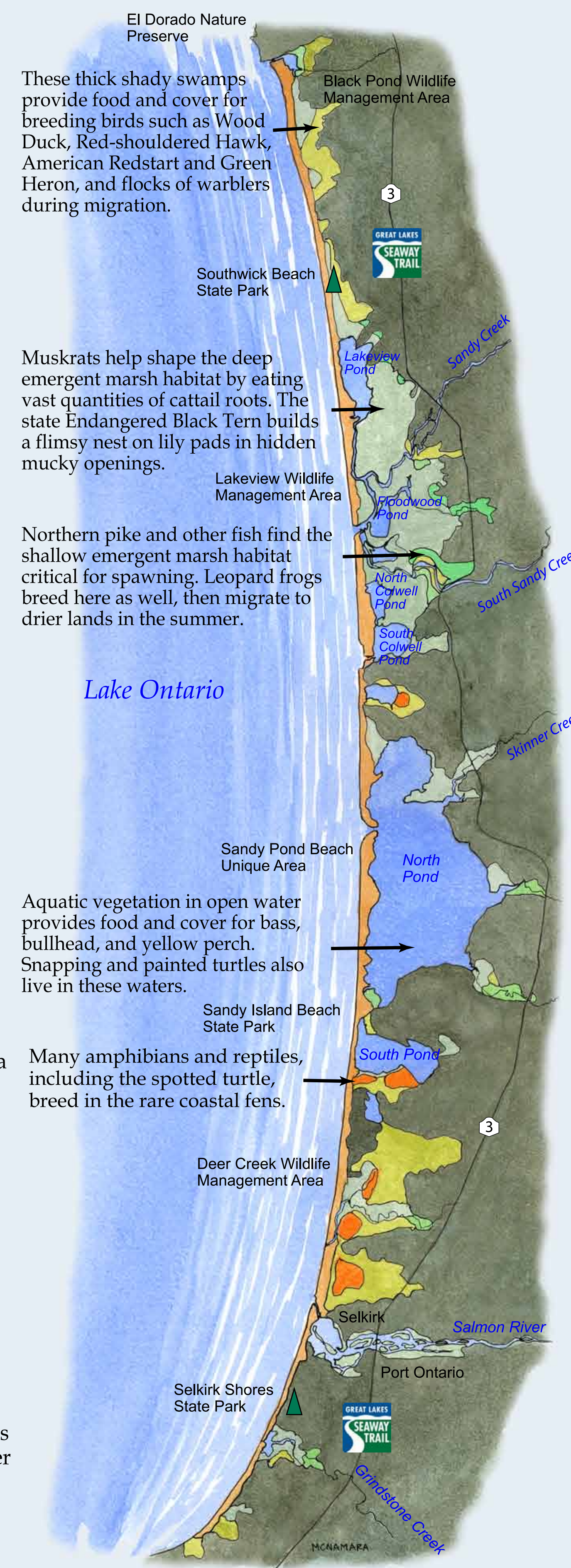


Upland of the deep marsh, water rises in the spring to inundate the land from 6 inches to 3 feet deep by late spring, but usually dries out by late summer. Bluejoint grass and a variety of other grasses and grass-like sedges dominate. Tall wildflowers like Joe Pye weed and jewelweed stand out in the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

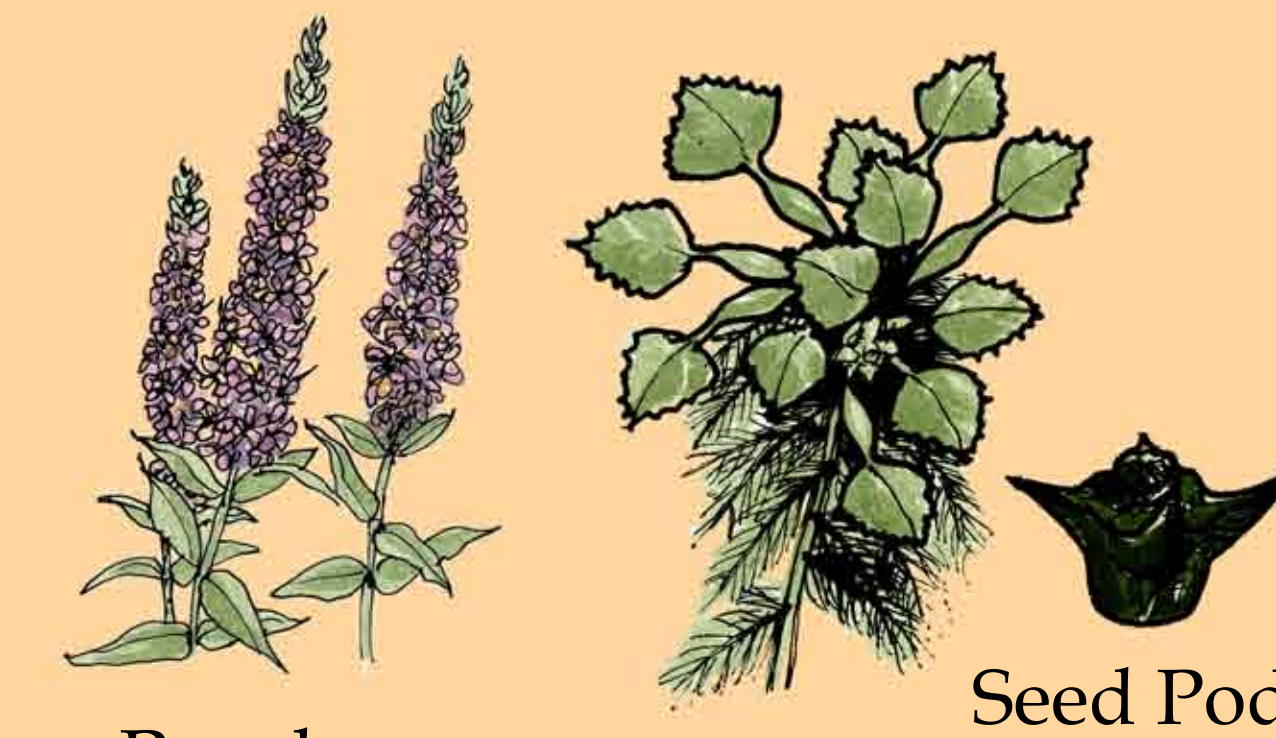
#### SWAMP



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



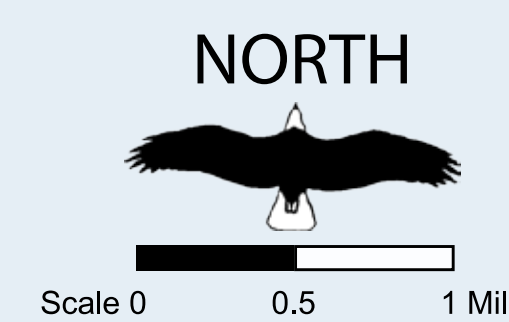
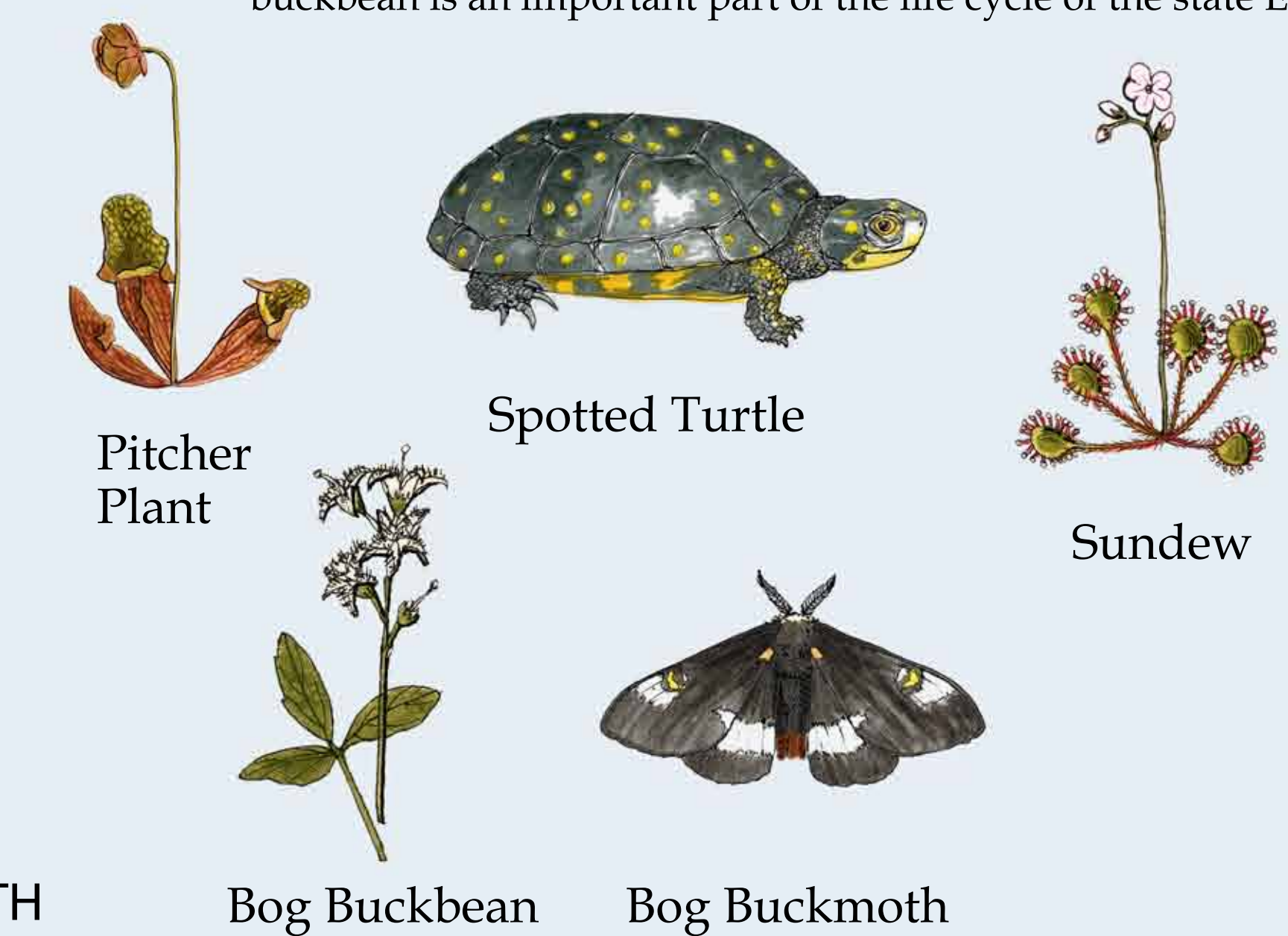
### INVASIVE SPECIES



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 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

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 fertilizer nutrients and minerals it carries.

