

PEI Wetland Notes



North American Waterfowl
Management Plan
Plan nord-américain de
gestion de la sauvagine
Plan de Manejo de Aves
Acuáticas de Norteamérica

EASTERN HABITAT JOINT VENTURE

Freshwater Wetlands

Although wetlands often escape the notice of most people, they command the attention of frogs, salamanders, and ducks. Wetlands are transition zones between water and land. Wetlands help maintain high quality water in the environment; they also supply some of nature's most biologically productive habitats. They are home to a great diversity of wildlife species.

Description

So, what is a wetland? An expansive rolling sphagnum bog, a tiny roadside marsh, and a shallow, sheltered rush filled lakeshore are all examples of a freshwater wetland. In general, a wetland is any area of land that is regularly covered or soaked with water for part or all of the year. Wetlands are characterized by the presence of wet adapted species such as waterlilies, amphibians, and dragonflies. Wetlands are neither land, nor water; they are transition zones that combine features of both.

Wetland habitat tends to develop in areas where water collects and remains at or near the surface. Low lying areas are ideal places for wetlands. Many wetlands exist close to rivers, streams, and lakes. Seasonal flooding helps maintain wet conditions throughout the year.

Wetlands come in different shapes and sizes. The major types of freshwater wetland habitat found in Prince Edward Island include marshes, bogs, fens, and swamps.

Marshes are nutrient rich sites that tend to be covered with water year round. Commonly, they occur along

ponds and rivers in areas that flood. In terms of vegetation, marshes are dominated by non-woody aquatic plants; conditions usually are too wet for trees and shrubs. Cattails, rushes, and pondweeds are typical marsh plants. Extremely biologically



Freshwater marsh

productive, marshes provide critical habitat for a variety of animals including black ducks, muskrats, predacious diving beetles, green frogs, and snails.

Bogs are usually self-contained wetlands that are covered with sphagnum moss and filled with decomposing sphagnum or 'peat'. Often rainfall is a bog's sole source of water. Usually knee-high shrubs



Larch trees on woodland bog

cover the surface of a bog and coniferous trees border the edge. The waters of bogs are cold, acidic, and distinctively tea coloured due to staining by peat. Compared to other wetlands, bogs tend to be lacking in nutrients. Though diversity of wildlife is low in bogs, many of the species that live in bogs are not found elsewhere. For instance, bog dwelling plants such as the insect eating sundews, are especially adapted to living in nutrient-poor conditions.

Fens are similar to bogs in their overall appearance. However, unlike bogs, fens receive water from surrounding lands and have defined drainage systems. Because water and nutrients move through fens, conditions are more favourable for growth in fens than in bogs. Consequently, fens support a greater abundance and variety of wildlife than do bogs. Sedge tends to be the dominant plant in fens. The peat formed in fens is composed of decaying sedge, rather than moss as in bogs.

Swamps are wetlands dominated by trees and shrubs. They receive water from surrounding lands and tend to be soggy places, rather than wet ones. During wetter seasons, swamps may hold standing or

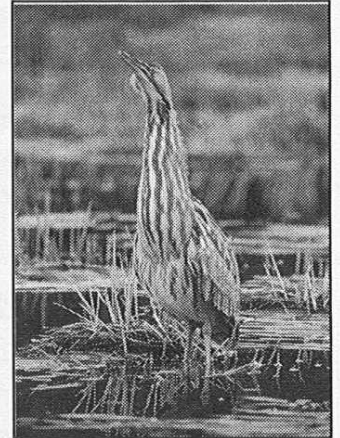


Maple swamp

gently flowing water. Red maple, black spruce, and larch commonly grow in swamps, as do mosses, grasses, and ferns. Swamps are nutrient-rich sites that offer superb habitat for wood frog, yellow-spotted salamander, little brown bat, and birds, such as the tree swallow and common yellowthroat.

Wetlands and Wildlife

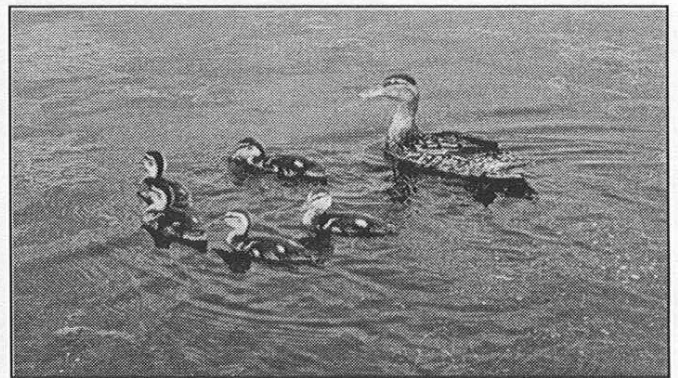
Clearly, wetlands provide food and protection for many species of wildlife. Wood ducks, beavers, muskrats, American bitterns, and water boatmen live in or around water and require wetlands to survive. Similarly, plants such as the pitcher plant, sundew, bulrush, and cattail grow exclusively in wetlands.



American bittern

Many species depend on wetlands to survive.

Generally, wetlands are areas where animals can find plenty of protective cover and forage. Animals as diverse as green-winged teal, little brown bats, sticklebacks, and garter snakes forage in wetlands. Not surprisingly, since there is such a wealth of food and protection in wetlands, these habitats serve as 'nurseries' for the young of many species of fish, birds, and amphibians. Many ducks nest and raise



Duck brood

their young in wetlands. A common sight in marshes is a brood of ducklings obediently bobbing behind the hen. Wetlands are safe places to start out life.

Wetlands and the Environment

Wetlands are quietly working to keep the environment clean and in balance. The community of wetland plants effectively absorbs and breaks down nutrients and chemical compounds present in run-off, thus protecting ground and surface water. Wetlands are nature's water purifiers.

Wetlands help regulate the supply of water in nature. By gathering water during times of flooding and releasing it gradually during periods of drought, wetlands stabilize levels of surface water and reduce soil erosion and its damaging side effects. Wetlands also replenish the water supply stored deep under ground. Water contained by wetlands remains in place long enough to allow some downward seepage into the ground water supply.

Conservation

The biggest single threat facing wetlands is land use. The draining, or so-called 'reclaiming' of wetlands still occurs. As well, poor land use practices in adjacent areas can devastate a wetland. Fortunately, trends are shifting. Increasingly, people are realizing how essential wetlands are to the well-being of wildlife, the environment, and people. This world wide realization has encouraged global efforts, such as the North American Waterfowl Management Plan, to conserve remaining wetlands.

More landowners are practising sustainable land uses on adjoining lands to help conserve wetland habitats. People with wetland habitat on their property, instead of in-filling these areas, are electing to maintain them for the benefit of wildlife. Many community groups are adopting a local wetland or restoring an abused wetland and transforming it into productive, healthy wildlife habitat; some people are even creating new wetland habitat in their neighbourhood. We all benefit.

Attitudes toward wetlands are improving. Efforts in Prince Edward Island and around the world are

helping to keep wetlands working for the good of nature. Wetlands are now receiving the recognition and care they rightfully deserve.

Respecting Wetlands

- *minimize disturbance to the zone surrounding a wetland, including the inflows and outflows
- *build around wetlands; don't drain or fill in
- *travel around wetlands, rather than through
- *employ land use planning that respects the integrity of wetlands
- *keep solid and chemical wastes out of and away from wetlands
- *minimize human activities in wetlands
- *take time to visit and discover more about wetland habitats

NOTE: Remember that wetlands are protected by law. A watercourse alteration permit is required before undertaking any activities that could alter a wetland.

Additional Information

For further information contact the Department of Technology and Environment, Fish and Wildlife Division (902)368-4683.

*This fact sheet was adapted from the Nova Scotia Department of Natural Resources **NS Wet Places** series produced through the Eastern Habitat Joint Venture.*



Ducks Unlimited Canada



Technology and Environment



Human Resources Development Canada

