## *Some focus species of greatest conservation need*

***Blanding's turtles***, rare in New York State, require large and diverse habitats and travel long distances to satisfy their habitat needs and find nesting sites. They spend their time in marsh and shrub wetlands and upland habitat with little development. They use vernal pools as "stepping stones" between larger wetlands, foraging for amphibian eggs and tadpoles. Leave travel corridors between vernal pools and other wetlands for dispersing turtles. Females lay only a few eggs in late May to early July. This low fertility means that a few adult deaths can have a negative effect on the local population of these turtles. They are easily killed by vehicles as they try to cross roads.


***Ospreys*** are fish eating birds who forage and breed along large rivers and lakes. They search for food by flying and hovering over water, and when a fish is sighted, an osprey dives steeply, sinking its talons into its prey. They also require marsh habitat, where beaver flooding creates standing dead trees (snags) for nesting, and shallow waters for easier access to fish. Ospreys build nests in heron rookeries; biologists have also had success building artificial nesting platforms on utility poles that cross wetlands, attracting nesting osprey to previously unoccupied areas. Reduce or eliminate recreational activities within 330 feet of nest sites to prevent disrupting the osprey's breeding and nesting activities.


***The river otter*** is a member of the weasel family. Historically, otters were found in all watersheds of New York; declines were attributed to unregulated harvest, habitat destruction, and water pollution. In the 1990s, the N.Y. River Otter Project aimed to restore otter to western New York. Live-trapped otter from eastern N.Y. were captured and released at several sites across much of western New York, which had lacked otter populations for many years. Otters have made a remarkable recovery in recent years due to these conservation efforts.

## *Wildlife Found in Wetlands*

Many wildlife species use marsh and shrub wetlands for some aspect of their life cycle, whether for breeding, feeding, cover, or nesting. Below are some species that depend on marsh and shrub wetland habitats. Be on the lookout for these species and other wildlife associated with wetlands. Follow stewardship guidelines to help maintain or enhance marsh and shrub wetlands. Species of greatest conservation need (SGCN) – those wildlife species identified in the **N.Y. Wildlife Action Plan** appear in **bold type.**

| **Birds** | **Mammals** | **Reptiles/amphibians** |
|---|---|---|
| **American black duck** | Beaver | **Blanding's turtle** |
| **American bittern** | **Eastern red bat** | **Bog turtle** |
| **American woodcock** | Mink | **Spotted turtle** |
| Great blue heron | Muskrat | Spring peeper |
| **Least bittern** | Raccoon | |
| Mallard duck | **River otter** | |
| **Northern harrier** | **Silver-haired bat** | |
| **Osprey** | | |
| **Pied-billed grebe** | | |
| Red-winged blackbird | | |
| **Rusty blackbird** | | |
| **Sedge wren** | | |
| Virginia rail | | |

***Authorship***

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***About the Habitat Stewardship Series***

Much of the land in New York State is privately owned. Landowners are the primary stewards of our wildlife and woodlands, which also provide clean water, scenic views, fresh air, natural and cultural heritage, forest products, and recreational resources. The Habitat Stewardship Series has been created to help landowners and land managers recognize the habitats critical for wildlife species at risk, and to illustrate the role private landowners can play in sustaining these species through conservation, management, and sound stewardship. For information on woodland management, and the **NY State Comprehensive Wildlife Conservation Strategy,** go to *http://www.dec.ny.gov/nimals/30483.html,* or *http://www.nyfoa.org* . **Photo Credits:** Cornell University, NYSDEC, N.Y.Seagrant, Sheryl Pollock, Todd Pierson, *http://www.discoverlife.org,* USEPA.

# Marsh and Shrub Wetlands

## *Habitat Stewardship Series*

***A collaborative effort of :***

**The New York State**

**Department of Environmental Conservation,**

**The New York Forest Owners Association,**

**Cornell Cooperative Extension of Chenango County,**

**Cornell University Department of Natural Resources**

## *Recognizing marsh and shrub wetlands*

***Marsh and shrub wetlands*** encompass a variety of wetland types, each with different vegetation, but with one thing in common; the soils in them are wet most of the year. For example, the cycle of a beaver flowage, from ponded water **(marsh)** to an abandoned/drained area **(wet meadow),** and re-growth **(shrub wetland)** can contain all types of marsh and shrub wetlands over time. These wetlands fit into three groups, identified by their vegetation:

***Marshes*** contain plants that grow out of water, but whose roots are wet, such as cattails, pickerelweed, and water lilies. Blanding's turtles, American black duck, mink, raccoons, muskrats and red-winged blackbirds rely on marsh habitat for their feeding and life cycles.

***Wet meadows*** are filled with sedges and grasses. Wet meadows may not be flooded all year, but they are wet for long periods during spring and summer. They provide a rich habitat for such critical species as ribbon snake, spotted turtle, and northern harrier.

***Shrub wetlands*** are thickets of shrubs and young trees growing out of wet soils, and they often flood in the spring. Spotted turtles, Canada warblers, New England cottontails, raccoons, and American woodcock all use shrub wetlands for food, cover, or breeding habitat.


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## *Why are marsh and shrub wetlands important?*

Marsh and shrub wetlands are rich habitats that provide a number of critical ecosystem functions such as flood control, pollutant filtration, erosion control, and wildlife habitat. Marshes are important for fish and amphibian breeding and for waterfowl, and they connect people to natural habitats through hunting, fishing, tourism, and nature based recreation. Shrub wetlands may seem to be inhospitable to people, and difficult to navigate through, but the dense thickets provide cover from predators for many wildlife species.

## *Where do marsh and shrub wetlands occur in New York State, and how are they protected?*

High quality marsh and shrub wetlands are found in all parts of the state, and are scattered across the landscape. To protect wetlands, our communities rely on overlapping local, state, and federal regulatory programs. New York's Freshwater Wetlands Act seeks to "preserve, protect and conserve freshwater wetlands and the benefits derived there from, to prevent the despoliation and destruction of freshwater wetlands, and to regulate use and development of such wetlands"

## *Threats from development*

The impact of human development on wetlands is the most significant threat to wetland habitats and their associated wildlife. Development, road-building and re-grading of land can fill and destroy wetlands, causing immediate loss of habitat and (for some species) permanent loss of populations. The loss of habitat, pollution, salt runoff from roads, and the destruction of beaver dams, (because of their proximity to backyards and roads) all have a detrimental effect on marsh and shrub wetland communities.

## *Threats from invasive plants*

Invasive plants such as ***purple loosestrife***, ***common reed*** (*Phragmites*) and ***Japanese knotweed*** threaten the diversity of plants in marshes, and several woody plants such as ***glossy buckthorn*** are a problem in shrub wetlands. Invasive plants take over native vegetation and offer less valuable habitat and food sources for many species of wildlife.


***Purple loosestrife***

## *Stewardship Guidelines for Marsh and Shrub Wetlands*

- ***Uplands surrounding wetlands need to be protected,*** for land conservation efforts to be successful in protecting wetland wildlife habitat. A 300 foot buffer of upland, unimpacted by development (no paved roads or buildings) surrounding a wetland, protects water resources and habitat for many wildlife species.

- ***Regenerate and promote growth of aspen*** (poplar, popple) and other hardwoods in small patches or strips along slow streams and rivers to enhance the food supply for beavers. Mallards and black ducks will benefit, as they nest on open ground around water bodies.

- ***Maintain habitat structures*** such as dead standing trees and overhanging vegetation in the water to provide cover for wildlife; keep downed logs as basking sites for turtles.

- ***Leave and protect standing dead trees*** as habitat for heron and osprey nesting, as roosting sites for bats, and as cavity nesting sites for a variety of other birds and mammals.

- ***Focus wetland restoration efforts on restoring flooding to marshes.*** Bogs and forested wetlands, (such as red-maple swamps) aren't easily recreated after damage to their vegetation or after changes in their flooding patterns.

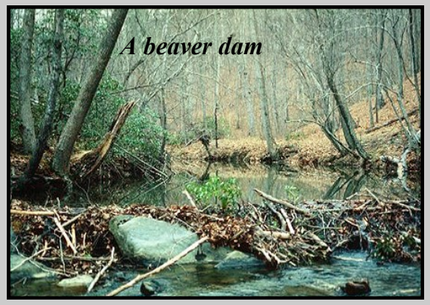
- ***Don't use heavy machinery on wetland soils*** to avoid negative impacts on animals or disruption of the wetland's flooding patterns.

- ***Where feasible, maintain open, sunny areas with little vegetation*** (or sandy areas) adjacent to marshes for turtle nesting.

- ***Maintain brush and other woody debris in and around wetlands*** to provide cover for small mammals, amphibians, and reptiles.

- ***Limit recreational access,*** as even low levels of human disturbance can disrupt marsh wildlife. Where access is allowed, avoid trampling existing aquatic vegetation. ATVs shouldn't be allowed on wetlands.

- ***Where human-built dams are present, avoid drawing down water*** levels in fall and winter, as this exposes dispersing and hibernating mammals to colder temperatures.



***A beaver dam***