

## Conserving Grasslands, Conserving Species

### Upland Sandpiper

This bird looks like many familiar shorebirds but instead of living on the coast, it requires grassland habitat for survival. Pairs of Upland Sandpipers nest on the ground using clumps of grass and vegetation for cover. The birds arrive in New York in mid-April and leave by mid-September. This species is now threatened in New York State.



Occasionally you will still find these birds nesting in abandoned agricultural fields or in the grasslands near airports.

### Eastern Meadowlark

The Eastern Meadowlark is a robin-sized bird with a brilliant yellow chest that lives and nests in grasslands. It builds its nest in depressions on the ground in dense vegetation. Although multiple clutches of eggs may be laid during a single breeding season, it is rare that two young are raised successfully. The timing of field mowing (recommended after their summer breeding season) is essential for the Meadowlark's young to survive. Loss of habitat due to conversion of grasslands for other uses is a major threat to this species.



### Ring-necked Pheasant

The Ring-necked Pheasant is a colorful and popular upland game bird native to Asia and Eastern Europe. Originally introduced into New York in the late 1800's, it continues to be bred and stocked by the State and private individuals. It does survive and reproduce in the wild, primarily in the Lake Plains region of the State, where it prefers fertile agricultural lands with a mix of fields and row crops, especially grains. Its population reached an all-time high in the 1970's and has been declining ever since, due to reduced stocking and landowner enrollment in programs that retire large fields from active agricultural production, converting them to grasslands.



### Wildlife Found in Grassland Habitat

Many wildlife species use grasslands, including those listed below. You can follow stewardship guidelines to help maintain and enhance their habitat. All of the species listed below have been categorized as Species of Greatest Conservation Need by the New York State Department of Environmental Conservation. Species of Greatest Conservation Need are those identified for a focus of conservation efforts in the state.

#### Birds

- Bobolink
- Dickcissel
- Eastern Meadowlark
- Grasshopper Sparrow
- Henslow's Sparrow
- Horned Lark
- Northern Harrier
- Sedge Wren
- Short-eared Owl
- Upland Sandpiper
- Vesper Sparrow

#### Reptiles and Amphibians

- Black ratsnake
- Eastern hognose snake
- Northern black racer
- Northern copperhead
- Smooth greensnake
- Timber rattlesnake
- Worm snake

#### Authorship

The New York Habitat Stewardship brochures are produced by Cornell Cooperative Extension. We gratefully acknowledge permission from the University of New Hampshire (UNH) Cooperative Extension and original author Malin Clyde of UNH in allowing us to adapt their Habitat Stewardship Series brochures for use in New York State. In New York State, funding was provided by the NYS Department of Environmental Conservation, through a State Wildlife Grant to the New York Forest Owners Association and administered by Cornell Cooperative Extension of Chenango County, with assistance from the Cornell University Department of Natural Resources. Adapted for use in New York State by Carly Neumann, Ashley Dayer, Audrey Denvir, Shorna Allred, and Rich Taber.

#### About the Habitat Stewardship Series

Much of the land in New York State is privately owned. These landowners are the primary stewards of our wildlife and woodlands, and also help to provide all of us with our clean water, scenic views, fresh air, natural and cultural heritage, 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 more information: <http://www.nyfoa.org/swg>

**Photo Credits:** Cornell Cooperative Extension, NYS Dept. of Environmental Conservation, Martin Piorkowski, Marcelo del Puerto, and Carl Schwartz.



Cornell University  
Cooperative Extension



Version 2, March 2012



## Grasslands

### Habitat Stewardship Series



**A collaborative effort of:**

**Cornell Cooperative Extension,  
the New York State  
Department of Environmental Conservation,  
and New York Forest Owners Association**



# Grasslands...

Grassland habitat is increasingly rare in New York. More than 70 species of wildlife use these open areas of fields and wildflowers to meet their needs for food, cover, or nesting. Most of today's grasslands are the result of land clearing and require maintenance to stay as grasslands. If left alone, these habitats will grow back into shrubs and small trees, reverting eventually to forest.

Most of the grasslands in New York are active or abandoned agricultural lands such as hayfields, pastures, and fallow fields found in the Great Lakes Plain. Here, vegetation consists of a mixture of grass species, or a combination of grasses, sedges, and wildflowers.

Airports, capped landfills, military installations, and wet meadows may also function as grassland wildlife habitat if they support similar vegetation. Croplands are also used by many grassland wildlife species, and are important as potential grasslands, since they may be easily converted to grow grass if crop farming practices are abandoned.

Vegetation growing in grassland habitats may be tall (over four feet), short (less than 6 inches), or a combination. Vegetation height plays an important role in determining which wildlife species will use the habitat. A common trait of all grassland habitats is that they contain few (if any) trees or shrubs.

Grassland habitats support 50 species that are considered Species of Greatest Conservation Need according to the New York State Comprehensive Wildlife Conservation Strategy (CWCS). Species of Greatest Conservation Need are those identified for a focus of conservation efforts in the state, making them eligible for special Congressional conservation funds.

## Where do grasslands occur in New York State?

Most of the grasslands in New York are active or abandoned agricultural lands found in the Great Lakes Plain. Jefferson County features the state's only alvar grasslands, places where the soil in the grassland forms only a thin layer over limestone or dolostone and supports unique plants and wildlife. The alvar grasslands found in Jefferson County are said to be some of the finest examples world-wide. The sandplain grasslands on Long Island are also considered globally rare. Other extensive grasslands can be found on the south fork of Long Island.

## Plants of grasslands

Today, most plants growing in grasslands are non-native grasses, introduced by humans for agricultural uses. These include timothy, Kentucky bluegrass, orchard grass and perennial ryegrass. Two native grasses, big bluestem and little bluestem, as well as native wildflowers such as goldenrod, aster, and Black-eyed Susan (shown at right), are also common in our grasslands today.

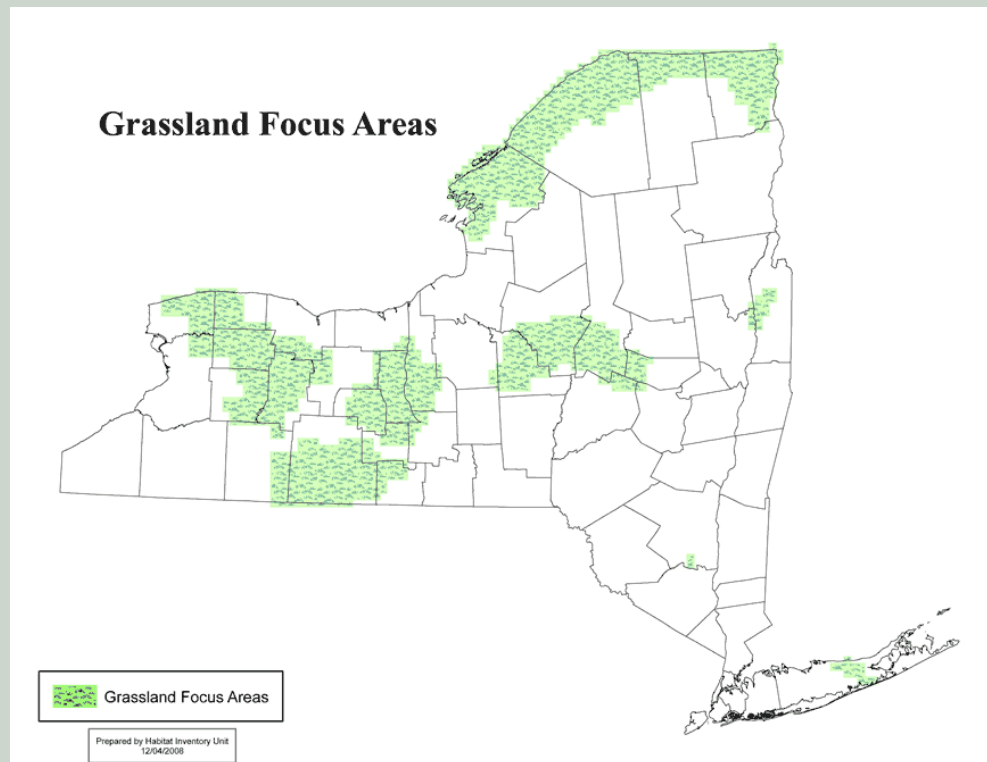


# Changing Grasslands

Grassland birds were not originally common in New York. These species bred in large numbers in the vast prairies of the Midwestern United States and Canada and were maintained by a semi-arid climate and the grazing pressure of vast herds of American bison. During the 19<sup>th</sup> century and into the present, these prairies have been largely converted into high-intensity row crop production.

During roughly this same time, forests in New York were being cleared for agriculture and hayfields. Grassland species from the Midwest found a new place to live and proliferated. Over the past fifty years, many of these farms and pastures have been fragmented or abandoned. Through ecological succession, these abandoned fields have reverted into forests. Also, with their well-drained soils, tree-less fields, and ample road frontage, agricultural lands offer attractive sites for development. Resulting erosion and pollution affect the quality of grasslands. Invasive species and over-browsing by deer can change the species composition and the suitability of the grassland for many of the species that historically have utilized them.

Additionally, limiting the occurrence of natural fires in the areas that grasslands occur have affected the plant species composition in these areas and therefore the wildlife. Where once fire maintained grasslands, other practices must now be used to keep important grassland habitats from turning into forests.



The areas highlighted in the map above are grassland focus areas in New York State. Appropriate sites within these areas might be considered for the establishment and maintenance of grassland habitat.

# Stewardship Guidelines for Grasslands

If creating or maintaining grassland habitat for wildlife sounds like something you would like to do, you can take steps to help conserve these habitats on your land. Here's how:



- Maintain fields by mowing them at least once every three years to **discourage trees and shrubs**. It is much more difficult and expensive to create a new field than to maintain an existing field through mowing.
- **Mow fields after mid-August**, which ensures grassland-breeding birds will have successful nests and young. Mowing even later (September-October) is ideal, since this allows late-flowering wildflowers such as aster and goldenrod to provide nectar for migrating butterflies. Areas where later mowing may be possible include airfields, capped landfills, fallow fields, edge habitats, marginal farmland, weedy areas, and fields producing bedding straw.
- **Focus land conservation on large grasslands** (greater than 20 acres in size), which benefit the greatest number of wildlife species and are increasingly rare in the state. Small patches of grassland surrounded by open fields (whether or not they are grasslands) are even more beneficial than small open patches surrounded by forests.
- Where possible, **remove all shrubs and trees growing in the middle of fields**, as these decrease the useable acreage as perceived by grassland-nesting birds.
- Consider that not all land is best as grassland. Allowing the land to turn into shrubland may have more value for wildlife, especially if it is a field under 20 acres in size or if it is not in a grassland focus area (see map).

## Prescribed Burns

Burning fields, particularly in areas with poor soil, can improve soil nutrients and mimic historical disturbances to grassland habitats. Burning will also help spread native grasses (see below) if they already exist in a field. The DEC recommends using prescribed burns as a management strategy to restore grasslands. Contact NYSDEC Lands and Forest as well as the local fire department. before undertaking any burning action.

## Support for Landowners

For technical and financial assistance in creating grassland habitat, contact:

- Natural Resource Conservation Service: <http://www.ny.nrcs.usda.gov>
- New York State Department of Environmental Conservation's Landowner Incentive Program: <http://www.dec.ny.gov/animals/32722.html>