

Wildlife Habitats: A History of Change for Connecticut's Wildlife



Belding



Wildlife Management Area

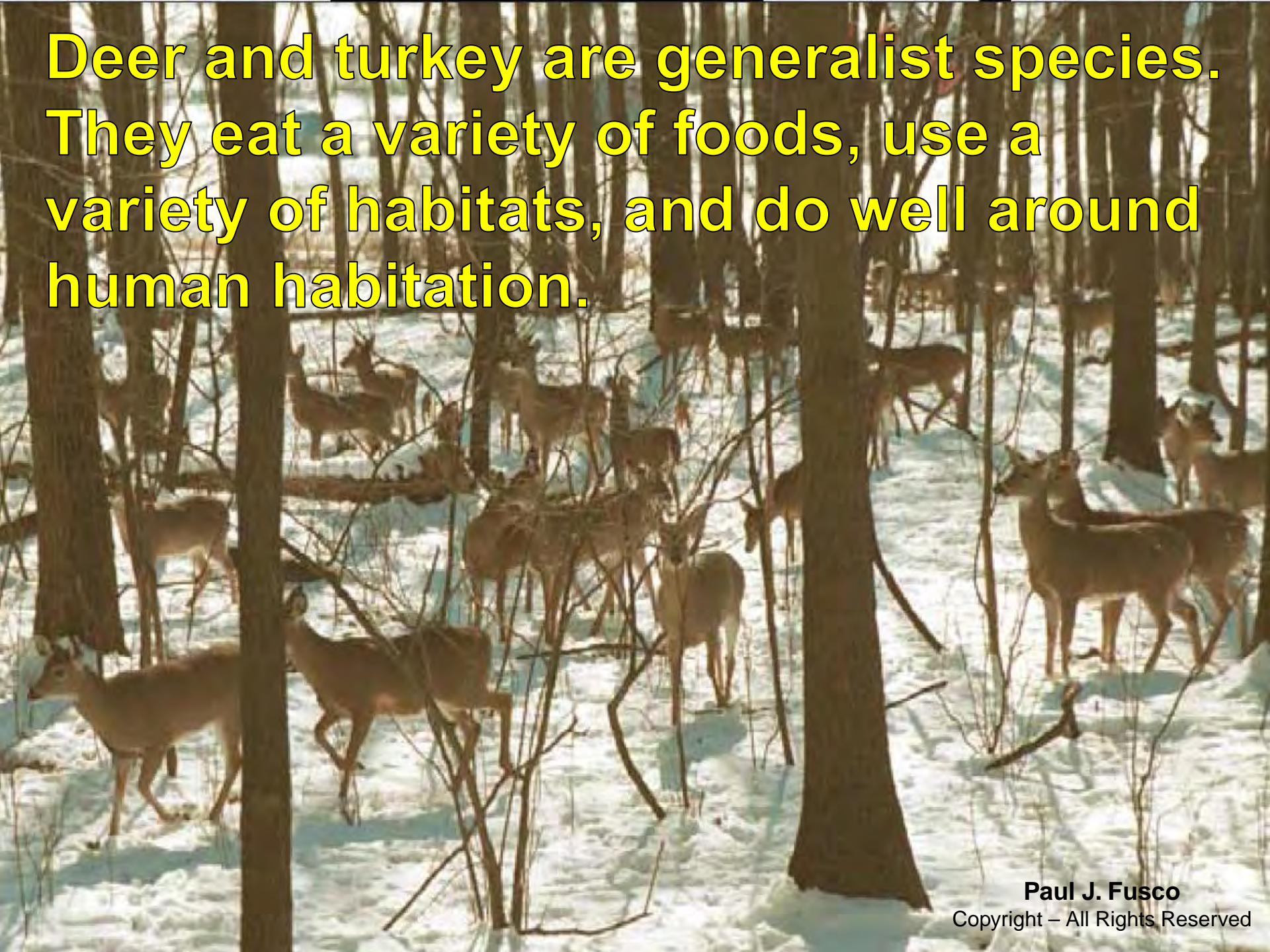
You have probably seen many deer...



... and turkeys in Connecticut.



Deer and turkey are generalist species. They eat a variety of foods, use a variety of habitats, and do well around human habitation.



**However, many species in Connecticut
are becoming rare.**





Animals that are at the greatest risk are those that depend on habitats that are at risk.

**Habitats that are at risk
include wetlands...**



and early successional habitats, such as:

grasslands



shrublands



and young forests



What do we mean by early successional habitat?



Succession is the natural process where one group of plants is replaced by another group of plants over time.



Succession



1. Bare ground is colonized by

2. grasses and wildflowers.

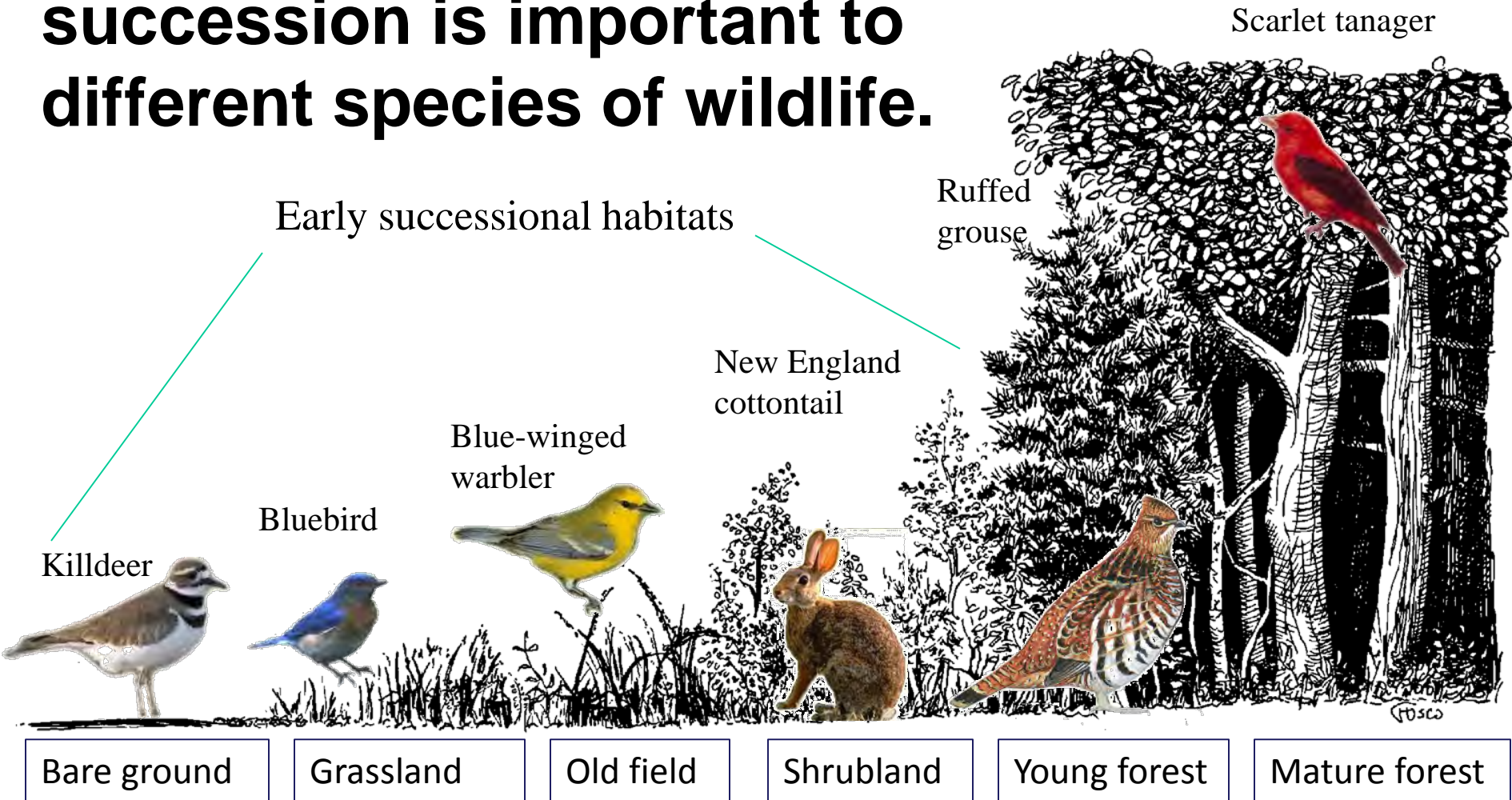
3. Scattered shrubs and trees sprout and grow into

4. a dense shrubland, which will continue to grow into

5. a young forest and ultimately into a

6. mature forest

Each stage in the process of succession is important to different species of wildlife.



Some animals use multiple stages of succession.



The American woodcock requires deciduous forest with adjacent grassland habitat.





Even forest interior birds depend on forest openings where they do much of their feeding.

What do you see in this grassland?







What happens to these species when grasslands disappear?


Much of the habitat that had been used by wildlife in Connecticut has been lost to development.





But some habitats are lost because
the forest has grown back.


Succession!

A photograph of a mature forest. The trees are tall and thin, with some showing signs of autumn color change. The ground is covered in fallen leaves and green plants. The text is overlaid on the bottom left of the image.

Most of our undeveloped land is mature forest, which is great for animals that depend on mature forest.

But, many of Connecticut's species depend on early stages of forest succession.



An eastern towhee is perched on a thin, light-colored branch with several small, yellowish-brown buds. The bird has a black head and back, a white breast, and a prominent orange-brown patch on its side. It is facing right with its beak slightly open.

**The eastern
towhee
requires
young forests.**

The eastern towhee
population has
declined 90% since
the 1960s.

The New England cottontail requires shrublands.



Paul J. Fusco
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The New England cottontail has lost more than 80% of its habitat since 1960. For more information on the New England cottontail, visit [New England Cottontail.org](http://NewEnglandCottontail.org) (link at end of slideshow).

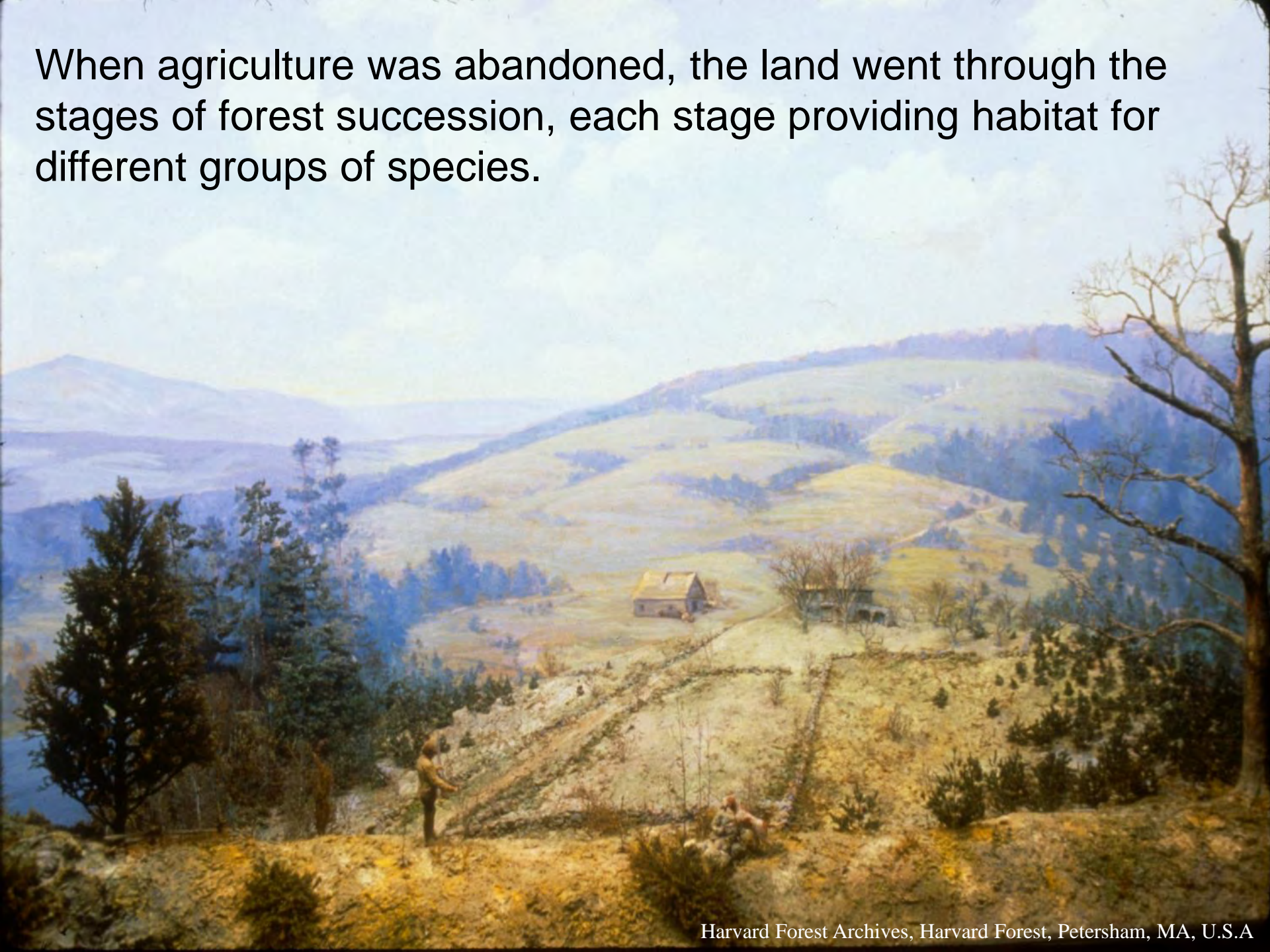
But why should we care? Wasn't Connecticut all mature forest before the settlers arrived?



The forests that the settlers encountered were cleared to make way for agriculture. While this was bad news for forest species, it benefitted grassland species. Farming back then moved more slowly, allowing grassland birds to raise their young in pastures and hayfields.



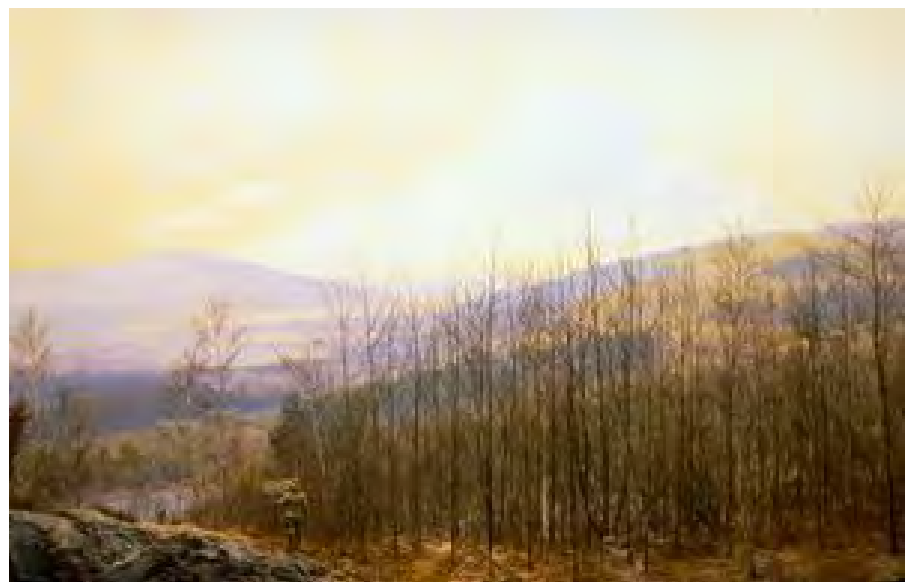
When agriculture was abandoned, the land went through the stages of forest succession, each stage providing habitat for different groups of species.



Eventually, the forests grew back.



So, why worry about species that are dependent on early successional habitats? Connecticut is just growing back into the forest that it always was, right?



Wrong! It is estimated that we now have less grassland habitat than when the settlers arrived.

So, how was it that Connecticut always had early successional habitats, such as grasslands, shrublands, and young forests?

Fire!





Fire was a frequent occurrence across the Connecticut landscape, creating or maintaining early stage habitats.

But what happens now when a wildfire breaks out?

A firefighter in a yellow jacket and red helmet is shown from the side, spraying water from a hose onto a wildfire. The firefighter is wearing a large black backpack and is positioned in a wooded area with many thin, bare tree branches. The fire is visible on the right side of the frame, with bright orange flames and thick white smoke rising into the air. The background is hazy and filled with smoke.

We put it out!

In such a highly developed state such as Connecticut, it is not long before a wildfire is knocking at someone's front door.



Fire suppression is one reason for the decline in early successional habitats, fire-dependent species, and other disturbance-dependent species.

But, it wasn't just fire that created or maintained early successional, or "disturbance-dependent," habitats.

What else played an important role in shaping Connecticut's landscape?



Beavers!



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Because what do beavers do?

A photograph of a forest with many cut tree stumps and logs on the ground, illustrating the text "They cut down trees!". The scene shows a dense forest of thin trees, many of which have been cut down, leaving stumps and logs scattered across the forest floor. The ground is covered with fallen leaves and some green vegetation. The text "They cut down trees!" is overlaid in large, white, bold letters across the center of the image.

They cut down trees!

**Which they use to build
dams and create ponds,**

2015/09/18



**which flood and kill
more trees.**

Given the right location, beavers are capable of flooding vast areas. Today, although beavers are once again abundant, much of their flooding is curtailed when their ponds expand into yards and roads that have been built near streams and wetlands.





After they eat themselves out of house and home, the beavers move on. The pond that they have left behind fills in with sediment. The sediment becomes exposed as the dam deteriorates and the stream finds its course. Grasses and wildflowers grow on the exposed sediment and a beaver meadow is born.

After several years, shrubs and tree seedlings begin to grow in the beaver meadow.



The tree seedlings grow into young trees.



The trees grow into a young forest and ultimately into a mature forest.



Succession!

Eventually, when the forest grows back, the beavers can move in and begin the whole process all over again.



For more information, view or download the booklet *Beavers in Connecticut: Their Natural History and Management*. Link is available at end of the slideshow.





Minnesota Department of Natural Resources, Minnesota
Department of Natural Resources Bugwood.org

UGA4214011



Robert L. Anderson, USDA Forest Service,
Bugwood.org

UGA3036081

Other natural disturbances that influence succession include ice storms, hurricanes, tornadoes, blowdowns, and seasonal flooding.



Robert L. Anderson, USDA Forest Service,
Bugwood.org

UGA0364098





Recent burn

Seasonal
flooding

Beaver
meadow

Beaver pond

Forest
regeneration
after fire

So at any point in time, there would be patches of habitat at different stages of succession across the landscape.

How much habitat does a species need?



Some species can use
small patches of habitat.



Eastern bluebirds can survive in relatively small patches of open habitat with abundant insects.



Other species require larger patches of habitat.



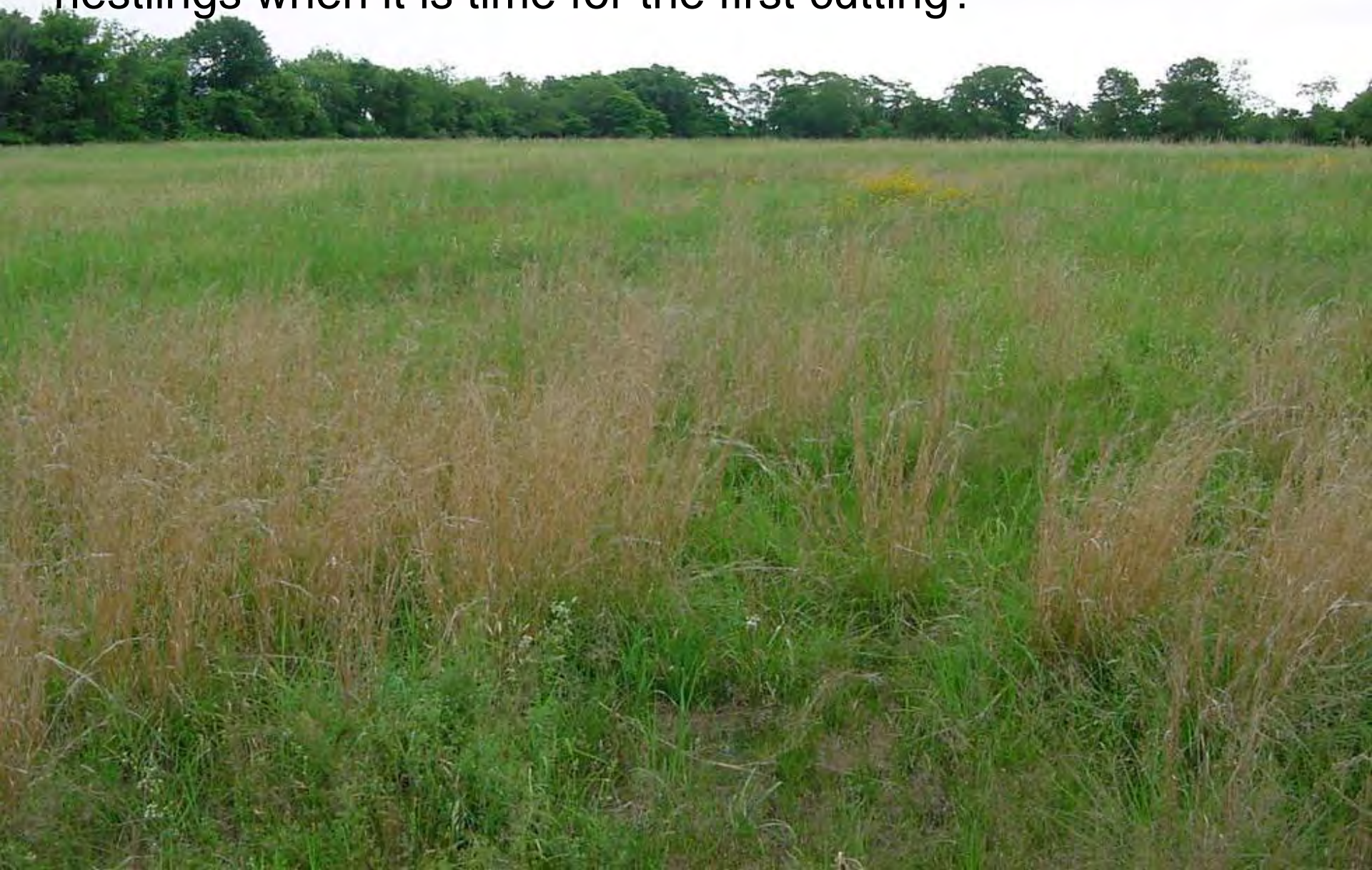
**The bobolink requires
at least 10 acres of
grassland habitat.**



**The eastern meadowlark
requires at least 20 acres.**



Although you can still find some 10- or 20-acre grasslands in Connecticut, many are hayfields. What happens to bird nestlings when it is time for the first cutting?



Populations of many grassland species are plummeting. The bobolink and meadowlark are now listed as species of special concern in Connecticut.






The upland sandpiper (left) and the grasshopper sparrow (right) require 100 acres or more of contiguous grassland habitat. Both of these species are endangered in Connecticut.

A photograph of a large, well-maintained green lawn in the foreground. In the background, a white two-story house with a grey roof is visible. To the left of the house, a paved road curves through a grassy area. The overall scene is a typical suburban residential setting.

Is a lawn a grassland?



No!

**A lawn does not provide for an
animal's basic requirements.**

All animals have four basic requirements (their biological needs).

WATER

FOOD

SHELTER

SPACE



All animals need enough **SPACE** in order to find all of the **FOOD**, **WATER**, and **SHELTER** that they need to survive AND reproduce.

As land is converted to buildings, roads, and lawns, the food, water, shelter, and space that animals need to survive is taken away.



The #1 threat to wildlife . . .



... is loss of habitat.



To help wildlife, Connecticut's DEEP Wildlife Division protects and manages wildlife habitat.



**So, how is
Connecticut's DEEP
Wildlife Division
creating early
successional habitats:
grasslands, shrublands,
and young forest?**



By simulating natural disturbances.



Logging in appropriate areas has helped the New England cottontail. This native rabbit has become rare across its entire range. As clearcuts grow back, the shrubland/thicket habitat that the New England cottontail requires is created.





Smaller trees can be removed with heavy equipment, such as the Brontosaurus.

Controlled burns are used to maintain grasslands.

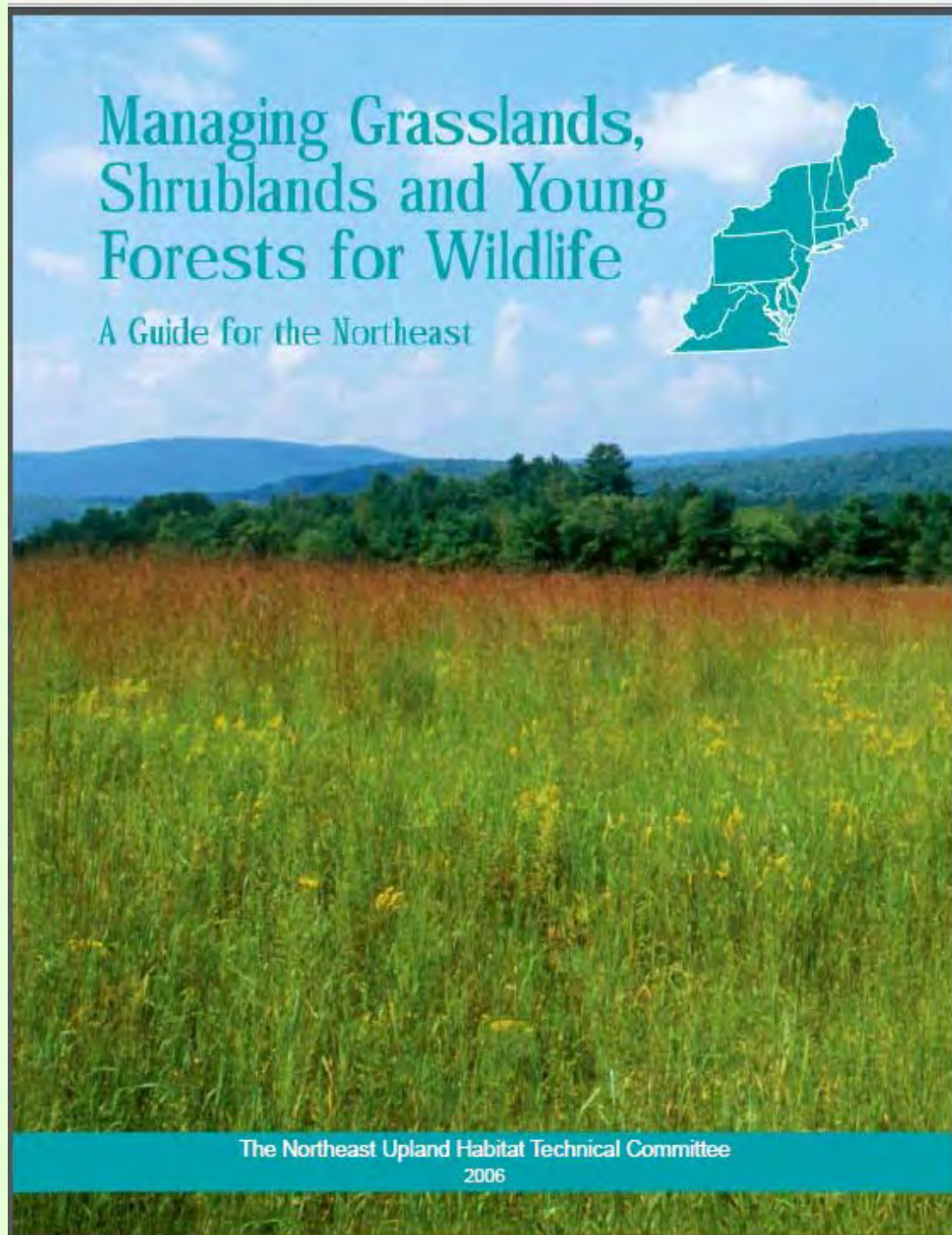


Mowing after nesting season is also used to maintain grasslands.





For more information on managing early successional habitats, view or download the publication *Managing Grasslands, Shrublands and Young Forest Habitats for Wildlife: A Guide for the Northeast*. The link is provided at end of slideshow.



Managing Grasslands, Shrublands and Young Forests for Wildlife

A Guide for the Northeast



The Northeast Upland Habitat Technical Committee
2006

A word on invasive plants. . .



Japanese barberry

Many habitats have been taken over by non-native **invasive** plants, such as **Asiatic bittersweet**, **Japanese barberry**, and **multiflora rose**. Animals have a harder time surviving in habitats that have been degraded by invasive plants.



While this looks like great shrubland habitat with thick cover, these non-native plants outcompete our native plants, and do not provide food for insects, which are an important source of food for many animals.



Replacing non-native invasive shrubs with native shrubs will help many wildlife species.



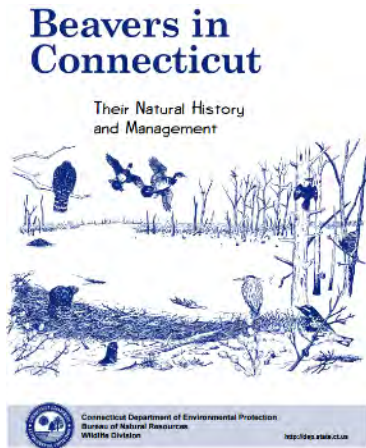
Planting native wildflowers in place of non-native plants will help butterflies and their caterpillars. For more information on how you can help wildlife in your own backyard, see the [Native Landscaping](#) slideshow.



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Wildlife Management Area
<http://www.ct.gov/deep/belding>

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