Teamwork to Create New Habitat

Robbins Swamp WMA site of new meadow

Written by Peter Picone, DEEP Wildlife Division

Imagine taking a 14-acre area with only two or three plant species present and turning it into a biologically diverse meadow with dozens of native wildflowers and grasses. This is currently happening at Robbins Swamp Wildlife Management Area in Falls Village. Not only is it a habitat project with a diversity of plants but also a diversity of partners. Partners in the meadow enhancement project include the DEEP Wildlife Division, students with the Housatonic Valley Regional High School Natural Resource Program (growing native plants in a greenhouse), Northwest Sportsman's Council (donated native seeds), the Connecticut Chapter of the Ruffed Grouse Society, Denise Ciastko of NativearthSeed LLC, and the Connecticut Agricultural Experiment Station (pollinator monitoring).

Biologically diverse fields planted with native grasses and wildflowers are used by an abundance of wildlife. Once the project is completed, native wildflowers will be blooming throughout the growing season, providing pollinators, such

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Jason Marshall, a delegate with the Northwest Sportsman's Council, adds native seeds to the DEEP Wildlife Division's Truax No-till Seeder.

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The northern leopard frog, a species of special concern in Connecticut, uses the wet meadows and fields at Robbins Swamp WMA in summer.

T. ZARRILLO

A female bumble bee (*Bombas bimaculatus*) visiting the flower of native bergamot.

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Native grass seeds (from left to right) in the hands of Jason Marshal (Northwest Sportsman's Council) holding big bluestem; Betsy Corrigan (DEEP Seasonal Resource Assistant) holding little bluestem; and Dennis Nogiec (Connecticut Chapter of the Ruffed Grouse Society) holding Indiangrass.

as bees and butterflies, with a variety of blossoms to choose from. Native grasses will be planted to create clumps with nooks and crannies that wildlife can use for cover and food. A variety of birds, butterflies, bees, other insect pollinators, reptiles, and amphibians will find the new biologically diverse meadow suitable for their particular needs of food, cover, and space.

Taking the Necessary Steps

A variety of steps have been taken to create the 7.2-acre native meadow and 4.8-acre soft edge/ecotone at Robbins Swamp WMA. In April 2021, the 14-acre area was cleared of invasive non-native plants by mechanical pulling and spot herbiciding. A planting list of native wildflowers and grasses was developed and the Northwest Sportsman's Council donated the seeds.

A 7.2-acre area was planted using a Truax No-till Seeder, originally donated to the Wildlife Division by the Connecticut Chapter of the National Wild Turkey Federation (see photo on page 4). One of the challenges when planting na-

tive grasses like little bluestem is that the seeds are so light that an ordinary seeder cannot do the job. The Truax no-till seeder has the ability to plant tiny wildflower seeds, as well as fluffy and light native grasses, such as little bluestem and big bluestem. Once wildflowers and grasses are established in this area, half of it will be mowed annually to maintain it.

A 4.8-acre area will become an ecotone, or edge, which will be allowed to grow naturally and create a soft edge where the field meets the forest. This area will be managed to control invasive plants and mowed less frequently than the 7.2-acre herbaceous field area. Woody plants, including native dogwoods, viburnums, serviceberries, and blackberries, will be allowed to grow but be cut periodically to prevent the area from succeeding into forest. Invasive non-native plants will be managed using mechanical and chemical control methods. This area will become dense with thicket-producing shrubs and provide a variety of seasonal food and cover for wildlife.

The Habitat Project Over Time

Over the next three growing seasons, students from the Housatonic Valley Regional High School are going to supply native wildflowers and native grasses as plugs grown in their greenhouses. The seeds for growing these native plants are being donated by Denise Ciastko of NativearthSeed LLC. Science teacher David Moran said that "this gives students an opportunity to use their horticultural skills and be engaged with field biology and applied science". Mr. Moran's students will be growing a variety of native plants, including joe pye weeds, milkweeds, asters, and grasses.

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As plant diversity increases with each growing season in the restored meadow, so will the diversity of wildlife species.

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Monarch butterflies will be able to find milkweed in the restored field at Robbins Swamp WMA.

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Seeds and insects that thrive in the new field habitat will provide food for hen turkeys and their poults.

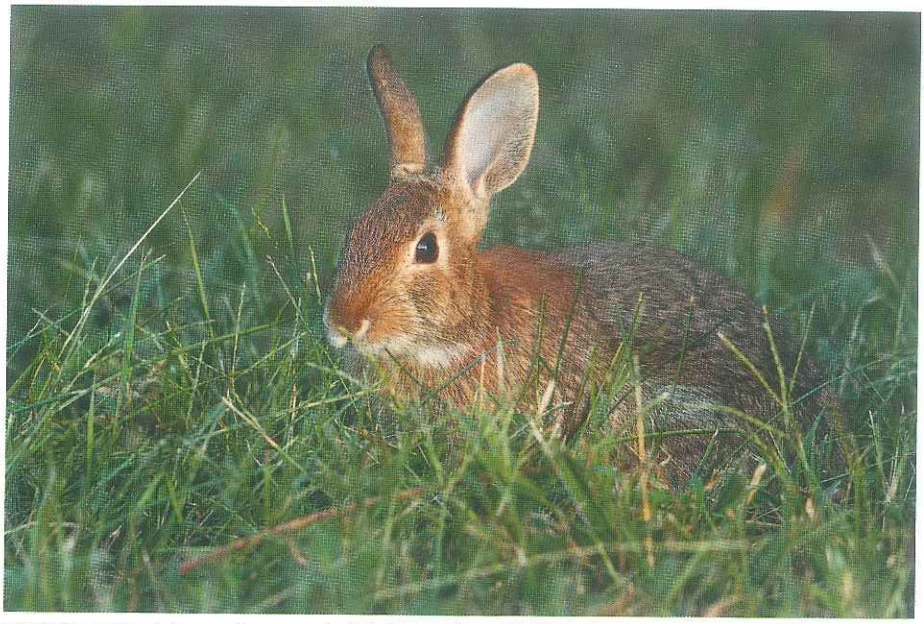
According to Mr. Moran, the Housatonic Valley Natural Resources Program, which includes forestry, freshwater fisheries, wildlife, and the Connecticut Envirothon, has always been excited to partner with the DEEP in many projects over the years, a direct spin-off and benefit of the Envirothon Program. Mr. Moran said, "We again enter in a welcome partnership with the Wildlife Division in helping to restore the Robbins Swamp meadow with native perennials. Students will raise plugs in a greenhouse for the restoration of the meadow and for use by biologists across the state. We thank Wildlife Division biologist Peter Picone for connecting students, once again, to meaningful environmental work."

Northwest Sportsman's Council delegate Jason Marshall said that "this habitat enhancement will improve the habitat for harvested and nonharvested wildlife species". Huntable species, like wild turkeys and American woodcock, will benefit from the creation of biologically diverse fields and edges.

Benefits of the Project

The value of the planted area is expected to increase for pollinators in the coming years. The Connecticut Agricultural Experiment Station's research associate Tracy Zarrillo is monitoring the site for pollinator use. Wildlife and insect diversity are expected to increase as plant diversity expands with each growing season, adding more food and cover resources.

Imagine a monarch butterfly flying over a biologically diverse field of native wildflowers and landing on a common milkweed and depositing eggs, or an American woodcock flying in to roost overnight in the protective cover of a native big bluestem grass clump. These are two examples of dozens of new opportunities created for wildlife in the improved habitat conditions. It is exciting to participate in a cooperative project that will transform a field with limited wildlife value to a diverse meadow with a soft forest edge teaming with a wide variety of wildlife, plant, and insect species.



P.J. FUSCO

Eastern cottontails prefer open habitats, such as fields, meadows, yards, and other grassy areas.

Aerial view of the 14-acre meadow restoration and enhancement project at Robbins Swamp Wildlife Management Area in Falls Village.

Native Wildflowers and Grasses Planted at Robbins Swamp WMA

Native Wildflowers

Asclepias incarnata **- Red Milkweed**
Asclepias syriaca **- Common Milkweed**
Asclepias tuberosa **- Butterfly Milkweed**
Aster laevis **- Smooth Blue Aster**
Aster novae-angliae **- New England Aster**
Aster novi-belgii **- New York Aster**
Chamaecrista fasciculata **- Partridge Pea**
Eupotorium fistulosum **- Joe Pye Weed**
Lobelia siphilitica **- Great Lobelia**
Mimulus ringens **- Monkey Flower**
Monarda fistulosa **- Wild Bergamot**
Penstemon digitalis **- Tall White Beardtongue**
Penstemon hirsutus **- Hairy Beardtongue**
Pycanthemum tenuafolium **- Mountain Mint**
Pycnanthemum tenuifolium **- Narrowleaf Mountainmint**
Solidago juncea **- Early Goldenrod**
Solidago nemoralis **- Gray Goldenrod**
Solidago odora **- Licorice Scented Goldenrod,**
Tradescantia ohiensis **- Ohio Spiderwort, PA Ecotype**
Veronica **- New York Ironweed**
Zizia aurea **- Golden Alexanders**

Native Grasses

Andropogon gerardii **- Big Bluestem**
Schizachyrium scoparium **- Little Bluestem**
Sorghastrum nutans **- Indiangrass**