

Benefiting Pollinators on State Forest Land

Introduction

Native pollinators in Pennsylvania include butterflies, moths, bees, beetles, flies, wasps, and hummingbirds (Black et al. 2007, NRCS 2005). Pollinators are important since they pollinate plants that provide fruit and berries, and they are prey to predators such as songbirds (Black et al. 2007). All wildlife requires food, cover, and water in their habitat, and food is the limiting factor for most native pollinator populations (Surcica 2009). Cover; which is needed for egg-laying, nesting, or resting, is plentiful on state forest land and can be anything from a shrub or tussock in a field, loose bark on a tree, a snag, or a cavity in the ground. This means the most efficient way to improve habitat for pollinators will be to provide more native food sources including wildflowers and flowering trees and shrubs (NRCS 2005). These flowering plants should be diverse to provide for an array of pollinators, and to ensure continuous blooming of various flowers throughout the season (Black et al. 2007, Ellis and Barbercheck 2014, Schweitzer et al. 2012, Surcica 2009). Non-native plants, though attractive, do not provide the benefits of native plants. Insect pollinators often utilize yellow, purple, and blue flowers, while hummingbirds feed from red flowers. Providing a diverse, native vegetative community to benefit adult pollinators will also benefit caterpillars that rely on host species in order to survive and develop. Habitat provided in one area may act as a refuge for individuals, and a source of individuals to recolonize other areas (Black et al. 2007). Pesticide use should be avoided around pollinator plantings. The following lists are not all inclusive, but include some of the more valuable wildflowers for pollinators. Refer to the Planting and Seeding Guidelines for a list of additional native wildflowers. Typically 0.5 lbs of wildflower seed per acre is sufficient when added to a Bureau of Forestry seed mix. If the expressed goals of the site is to attract pollinators, considering adding more seed and more species per acre.

Practices

- Plant a variety of native wildflowers to provide blooming throughout the season
- Add native wildflower seed to seed mixes used on timber sales
- Add native wildflower seed to seed mixes used on pipeline rights-of-way
- Add native flowering shrubs to pipeline rights-of way
- Plant native flowering trees and shrubs on temporary workspaces for pipeline rights-of-way
- Add native wildflower seed to post-construction storm water management structures associated with Marcellus infrastructure
- Add native wildflowers to roadside areas
- Add native wildflowers to permanent herbaceous openings

Native Flowering Shrubs and Trees

Dogwoods (*Cornus spp.*)

Elderberry (*Sambucus spp.*)

Serviceberry (*Amelanchier spp.*)

Hawthorn (*Crataegus spp.*)

Viburnums (*Viburnum spp.*)

American mountain ash (*Sorbus americana*)

American sweet crabapple (*Malus coronaria*)

Redbud (*Cercis canadensis*)

Native Wildflowers

Wildflower	Scientific Name	Season	Pollinators
Hoary mountainmint	<i>Pycnanthemum incanum</i>	Spring	Butterflies
Common milkweed	<i>Asclepias syriaca</i>	Spring-Summer	Butterflies, Bees, Beetles
Tall white beardtongue	<i>Penstemon digitalis</i>	Spring-Summer	Bees
Wild bergamot	<i>Mondarda fistulosa</i>	Summer	Butterflies, Bees, Hummingbirds
Butterfly milkweed	<i>Asclepias tuberosa</i>	Summer	Bees, Butterflies, Beetles
Ox-eye sunflower	<i>Heliopsis helianthoides</i>	Summer	Bees
Black-eyed Susan	<i>Rudbeckia hirta</i>	Summer	Bees, Butterflies, Beetles
Senna	<i>Senna hebecarpa</i>	Summer	Bees
Showy tick trefoil	<i>Desmodium canadense</i>	Summer	Bees, Hummingbirds
Partridge pea	<i>Chamaecrista fasciculata</i>	Summer	Bees, Butterflies
Gray goldenrod	<i>Solidago nemoralis</i>	Fall	Butterflies, Bees, Beetles
New England aster	<i>Symphotrichum novae-angliae</i>	Fall	Bees, Butterflies

Adapted from Surcica 2009.



References

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