COMMONWEALTH OF MASSACHUSETTS

LEADING BY EXAMPLE PROGRAM

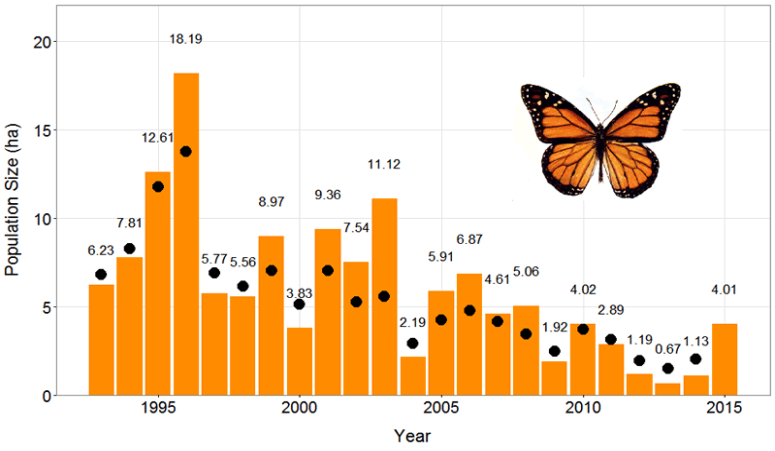
Guiding Framework: Creating Healthy Pollinator Habitat at State Facilities

The Leading by Example Program works collaboratively with state agencies and public colleges and universities to advance clean energy and sustainable practices that reduce the environmental impacts of state government operations.

This guiding framework outlines strategies that MA state facilities can implement to support pollinator habitat on state lands. These strategies provide environmental and fiscal benefits and lead to more diverse, resilient, and beautiful landscapes.

A State-Wide Need for Pollinator-Focused Habitats

In Massachusetts, over 45% of agricultural commodities rely on pollinators such as bees, butterflies, beetles, moths, and birds. Pollinators also ensure the regeneration of flowering plants in the wild and are an essential source of food for birds, reptiles, fish, and other wildlife. Despite their importance, insects around the world are experiencing drastic population declines, with some studies estimating that over 40% of insect species are threatened with extinction. In 2019, three native bee species were listed under the Massachusetts Endangered Species Act. Creating and preserving habitat is critical for the continued existence of pollinator species and the benefits they provide.

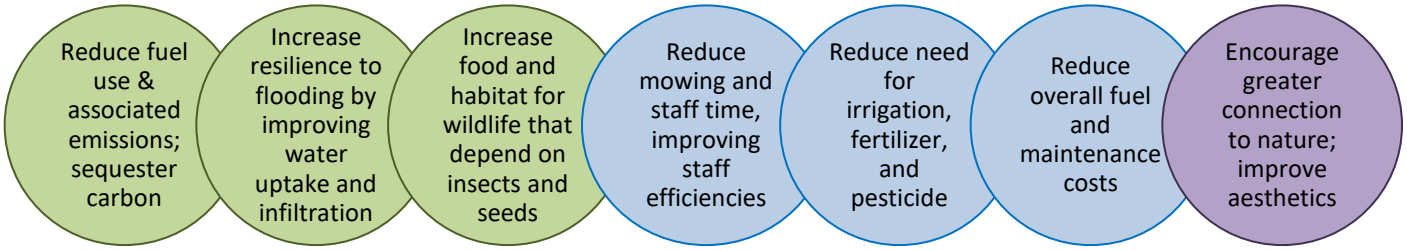


Decline in the eastern migratory monarch butterfly population as surveyed by the World Wildlife Fund-Mexico. (Source: USGS)

Pollinator habitats support a range of birds, bees, beetles, butterflies, moths, and more

Lose Lawns, Protect Pollinators

Replacing traditional lawns, or sections of lawns, with native plantings is a cost-effective way to support native pollinators. A diverse, naturalized landscape requires no (or minimal) mowing, will be more drought tolerant, and will not require fertilizers or the broad application of herbicides, resulting in energy and cost savings, more efficient use of staff time, and a healthier environment. In addition to fulfilling the need for critical habitat for pollinators and other wildlife, a more diverse landscape will increase carbon sequestration, better manage and clean stormwater, and help create more climate resilient landscapes.



Strategies for Implementation

Pollinators benefit from the presence of a wide range of native flowers, grasses, shrubs, and trees that bloom throughout the growing season. Creating pollinator habitat is as easy as changing management practices on lawns and meadows, including: 1) establishing a limited (once/year) mowing regime; 2) sowing native wildflowers; and/or 3) planting a pollinator garden.

Strategy 1:
LIMITED MOW ZONES

Reducing the number of annual mows on underutilized grassy areas is the easiest, least costly way to create habitat. Limited mow zones are typically mowed once per year in the late fall or early spring. Mowing along edges and adding signs indicates intent and increases public awareness and support.

Case Study: MassDOT

- MassDOT is responsible for managing nearly 7,000 acres of land, many located along major thoroughfares.
- Switching from 4 to 1 annual mow at various sites has successfully kept plants from overgrowing while creating valuable habitat and saving time and resources.

Public agencies/campuses implementing this strategy include: Bristol Community College, DCR, Massasoit Community College

Strategy 2:
MANAGED MEADOWS AND GRASSLANDS

In areas of unused lawn or where a more interesting and colorful landscape is desired, wildflower meadows can be created by preparing and seeding a targeted area. Seed mixes should be made up of a diversity of native flowers and grasses that bloom throughout the growing season.

Case Study: Taunton State Hospital

- A 1.5-acre area previously mowed 8-12 times annually was tilled and seeded with a northeast wildflower mix. Mowing occurs only once per year after the first frost.
- A walking path and benches allow visitors and staff to enjoy the space. Educational signage highlights the habitat benefits.

Public agencies/campuses implementing this strategy include: DCR, MassDOT, MassWildlife, UMass Lowell

Strategy 3:
POLLINATOR GARDEN

Small gardens featuring native perennials that bloom throughout the growing season are great for pollinators and for enhancing public places. Rocks, woody debris, and water sources can be incorporated to provide additional habitat. Educational signage related to pollinators and habitat can be used to enhance the project and raise awareness.

Case Study: UMass Amherst

- The campus planted native perennials in a parcel and included a ground-level water source for pollinators.
- Located in a highly visible area, the design included pavers and benches to create a welcoming and attractive space.

Public agencies/ campuses implementing this strategy include: Berkshire Community College, DCR, MassArt

State Pollinator Contacts

As every site is different, consult with state and other relevant experts before selecting plants or implementing a pollinator-friendly strategy at your site. Please visit our website (www.mass.gov/eea/leadingbyexample) or reach out to members of the Interagency Pollinator Habitat Working Group for more information:

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