



POWER PLANTS

All native species matter, but some natives, called keystone plants, support more wildlife than others. Most of us know that native plants are better at supporting native wildlife than nonnatives. Should some native species be given preference over others?

Scientists, increasingly are alarmed by the planets dwindling biodiversity and have been advocating that yes, some species should be given more preference. Of North America's more than 17,000 species of native plants, some are indispensable for certain vulnerable wildlife species to complete their life cycles. A well-known example of this is the milkweed. No matter where, every monarch butterfly must find and deposit eggs on milkweed in order for its caterpillars to survive.

Keystone plant species are foundation species doing most of the work fueling food webs. Without these keystone species the ecosystem would collapse according to University of Delaware entomologist, Doug Tallamy.

How are keystone native plants identified? One clue is to notice how many caterpillar species a plant supports. After a plant captures the sun's energy through photosynthesis, it must be eaten by animals for that energy to move through the food web. Caterpillars transfer more energy than other animals and their protein packed bodies are a primary source of food for scores of wildlife species, including more than 96% of terrestrial birds who depend on the caterpillar food source to feed their young.

Caterpillar host plants are not the only critical keystone natives. Without animal pollinators, food webs would lose the plants that capture the sun's energy. By far the most important pollinators are bees, and like caterpillars, can be picky. Around 30%

of the 4000 species of bees native to North America are specialists that eat pollen only from a narrow range of plants making them more vulnerable than the generalists such as the bumble bee. The best way to help all bees is to grow plants for specialists and the generalists will benefit as well.

Most homeowners do not have the time to comb through technical scientific literature for the best plants to plant. The National Wildlife Federation has a resource list for our ecoregion that will help you find what plants are best for you.

This link is for the Eastern Temperate Forests- Ecoregion 8 which is the region Massachusetts is in.

<https://www.nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-keystone-plant-list-ecoregion-8-eastern-temperate-forests.ashx?la=en&hash=1E180E2E5F2B06EB9ADF28882353B3BC7B3B247D>

The list is extensive with trees, shrubs, flowering perennials and more.

Faced with the overwhelming problem of disappearing biodiversity, many people feel helpless. There are meaningful actions we all can take. One of them is to grow keystone native plants and nurture the greatest number of bees, caterpillars and the multitude of other wildlife that depend on them.

“If you plant a single acorn it will support tens of thousands of individuals of thousands of species during the trees lifetime”

Doug Tallamy, University of Delaware

PLANT NATIVE - PLANT KEYSTONE



Source: National Wildlife, April/ May 2022