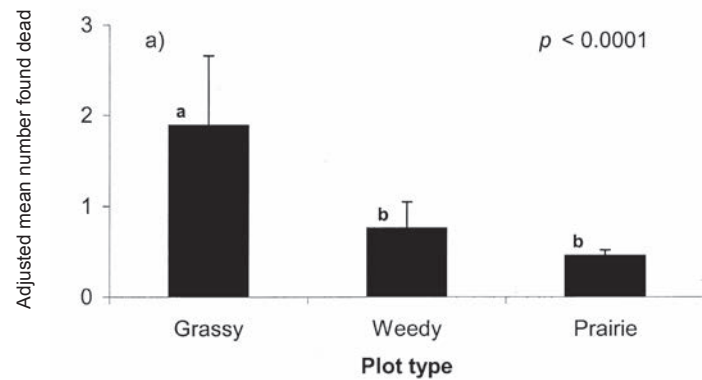




Collisions with Vehicles

Roadside plantings may be one of the only concentrated areas of habitat available for pollinators at a given location. Therefore, roadside vegetation should have a net benefit for pollinators, even accounting for some mortality from collisions with vehicles. Research has suggested that the number of pollinators killed by traffic is a comparatively small proportion of overall pollinator populations using the roadside [Ries et al. 2001; Rao and Girish 2007; Skórka et al. 2013].



Research conducted in central Iowa found that butterflies were twice as likely to be killed by vehicle collisions on grassy county roadsides dominated by non-native grasses than on weedy or prairie county roadsides that had flowers [Ries et al. 2001].

For More Information

iowalivingroadway.com

The Iowa Living Roadway Trust Fund website contains information about native plants used along Iowa federal, state and county roadsides.

tallgrassprairiecenter.org/irvm

The county IRVM program office website contains information on Iowa counties that participate in IRVM, and online versions of this brochure and other brochures related to IRVM.

xerces.org/pollinator-conservation-roadsides

The Xerces Society for Invertebrate Conservation website contains a variety of resources related to roadsides and pollinators.

pollinator.org/roadsides

The Pollinator Partnership website includes information on the Highways BEE Act and a technical manual for state DOT managers and staff.

monarchjointventure.org/resources/downloads-and-links/

The Monarch Joint Venture webpage contains answers to frequently asked questions related to monarch conservation, including best mowing practices for monarchs.

environment.fhwa.dot.gov/ecosystems/vegmgmt_pollinators.asp

The Federal Highway Administration has compiled resources related to roadsides and pollinators, including best management practices.

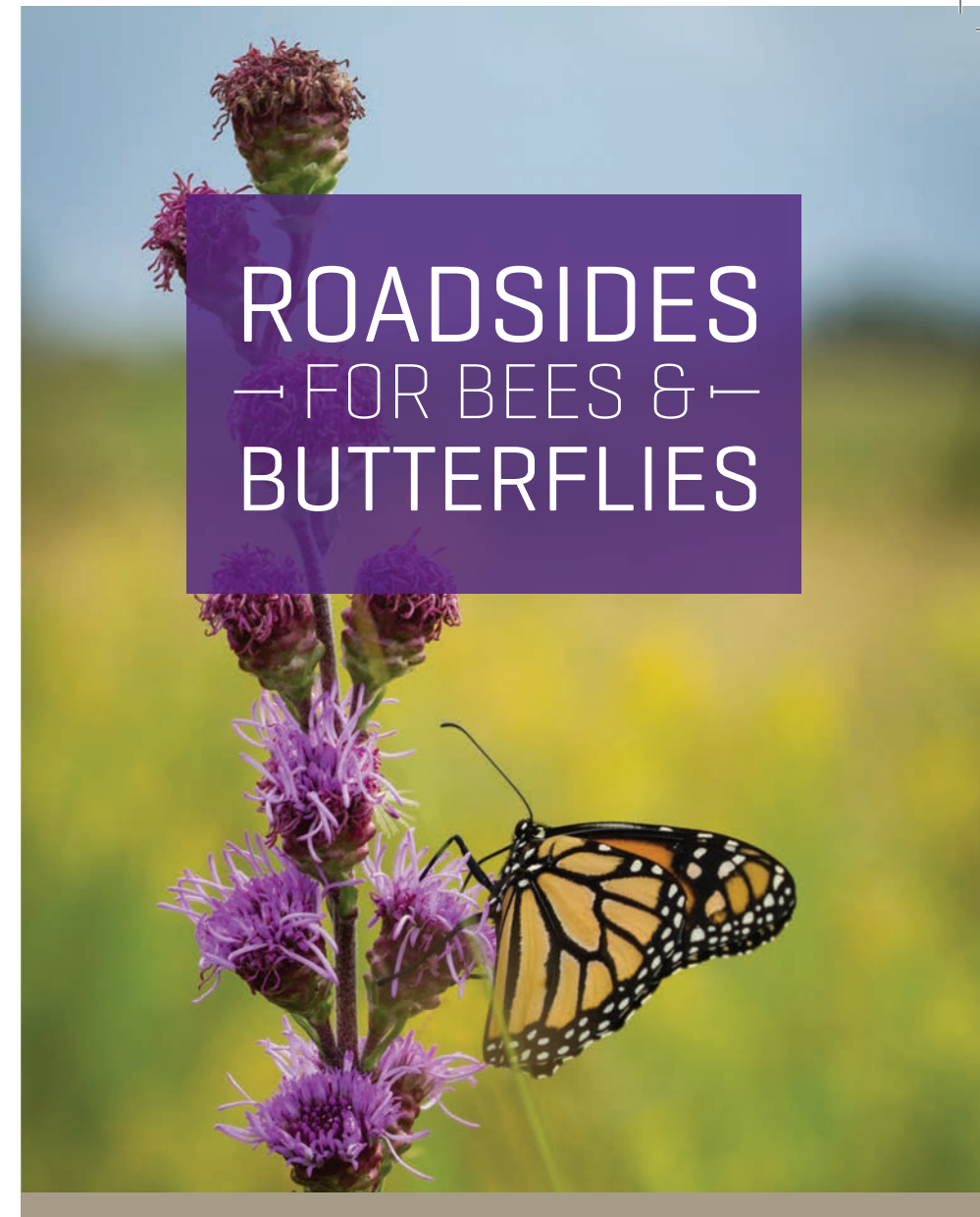
erc.uic.edu/biofuels-bioenergy/pollinator-habitat/rights-of-way-as-habitat/

The Rights-of-Way as Habitat Working group is a forum for sharing ideas and best practices for habitat projects along rights-of-way.

INTEGRATED ROADSIDE VEGETATION MANAGEMENT

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Pollinators in Peril

Over the last 30 years, the populations of many pollinators – honey bees, native bees, butterflies, birds and bats – have declined. The decline or loss of pollinator species can have large environmental and societal consequences. Most wild and cultivated flowering plants depend on pollination by insects and other animals to reproduce.

There are many interacting stressors affecting insects, the most common and important pollinators. Habitat loss is one of the main pressures on insects. Other pressures include pesticide use, climate change and disease.



Over 100 fruit, vegetable and nut crops worth over \$20 billion annually to the United States economy depend on pollinators. Photo Credit: Whole Foods Market.



The Role of Roadsides in Pollinator Conservation

The Iowa DOT and many Iowa counties use Integrated Roadside Vegetation Management (IRVM), which incorporates the seeding of native plants along roadsides, judicious herbicide use and reduced mowing to manage roadsides. Planting roadsides with native grasses and wildflowers can restore valuable habitat for pollinator foraging, nesting and breeding in areas where little natural habitat is available.



Wildflowers

In Iowa, IRVM seed mixes typically contain 10-25 native wildflower species. Swamp [rose] milkweed and butterfly milkweed, host plants for monarch butterfly larvae, are often included. Other flowering plants important to a variety of pollinators for breeding, shelter and food are seeded as well.

Grasses

IRVM seed mixes typically contain between five to eight native grass species. Pollinators also use grasses as habitat. Bumble bees nest under grass thatch, under clumps of bunch grasses and in old rodent nests at the base of bunch grasses such as little bluestem and rough dropseed. Native grass species are host plants for the larvae of some butterfly species. Roadside native seed mixes contain at least 50 percent grasses by seed count because grasses are better at stabilizing steep slopes and competing with invasive plant species than wildflowers. Including a high proportion of grasses also keeps wildflowers from getting too tall and falling over.