



Environment and Natural Resources Trust Fund Recommendations from the LCCMR to the 2014 Legislature for Funding beginning FY 15

The LCCMR is recommending approximately \$29 million from the Environment and Natural Resources Trust Fund (from State Lottery dollars) for 72 appropriations in the areas of:

- Water resources
- Aquatic and terrestrial invasive species,
- Foundational natural resource data and information,
- Methods to protect, restore, and enhance land, water and habitat
- Land acquisition for habitat and recreations
- Air quality, climate change, and renewable energy
- Environmental education

Of the 72 appropriations being recommended there are 6 appropriations totaling \$2,225,000 directed specifically to the issue of pollinators in Minnesota. These recommendations will begin July 1, 2014 for a period of three years.

Recommendations Relating to Pollinators

The loss of pollinators is often due to many causes, including the loss of nesting sites, fewer flowers, increased disease and the use of more insecticides.

1) “Enhancing Pollinator Landscapes” recommended for \$864,000 to the U of M

This appropriation, led by Dr. Marla Spivak, will identify sources of nectar and pollen for native pollinators and honey bees, provide oversight and coordination of ongoing efforts to enhance pollinator habitat, and evaluate potential future efforts to enhance pollinator habitat and pollinator nesting and foraging.

2) “Imperiled Prairie Butterfly Conservation, Research, and Breeding Project” recommended for \$625,000

This appropriation is a joint project with the Minnesota Zoo and the DNR. With the decline in native prairie habitat, many prairie plant, animal, and insect species have dramatically declined, including several species of once prevalent native butterflies that are pollinators. This appropriation is to expand breeding efforts for specific butterfly species under threat, monitor populations of other species, research butterfly genetics and causes of mortality, and provide targeted outreach and education on these species and efforts. Two of these species under threat that will be of focus; the Poweshiek skipper line and the Dakota skipper have recently been proposed to be placed on the federal endangered species list.

3) “Understanding Systemic Insecticides as a Protection Strategy for Bees” recommended for \$326,000 to the U of M.

This appropriation, led by Dr. Vera Krischik, is to continue research on how native bee and honey bee colonies are impacted by systemic, neonicotinyl insecticides in pollen and nectar of plants growing in fields and landscapes.

4) “Wild Bee Pollinator Surveys in Prairie and Grassland Habitat” recommended for \$370,000

This is a project is a team effort led by the DNR that also includes the U of M, the Science Museum of Minnesota, the Xerces Society, and The Nature Conservancy. Wild bees are important pollinators of many



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prairie plant species. This appropriation will assess the diversity and distribution of wild bees on prairie and grasslands and form the basis of measuring differences in the bee fauna documented from prairies in the past to those found on native and restored prairies and grasslands today. This information will refine restoration decisions to enhance both the bee pollinator populations and prairies grassland habitat.

5) "Pollinator Education Center" at the Minnesota Landscape Arboretum recommended for \$615,000

This appropriation is to develop exhibits for a new educational center at the Arboretum that is to be focused on providing hands-on learning experiences for visitors about the role of pollinators and the importance of pollinator habitat. The exhibits will integrate the best available science on pollinators, including a particular focus on native pollinators.

6) "Minnesota Pollinator Partnership" recommended for \$100,000

This appropriation is to Pheasants Forever to complete forty community pollinator education and habitat projects.

Below is the abstract from the LCCMR Website for an appropriation underway from ML 2013

Bee Pollinator Habitat Enhancement

Subd. 04h \$200,000 TF

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Appropriation Language

\$200,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to assess the potential to supplement traditional turf grass by providing critical floral plant resources to enhance bee pollinator habitat. This appropriation is available until June 30, 2016, by which time the project must be completed and final products delivered.

Project Overview

Bees play a key role in ecosystem function and in agriculture, including more than one hundred U.S. crops either need or benefit from pollinators. However, bee pollinators are in dramatic decline in Minnesota and throughout the country. One of the potential causes appears to be a scarcity of bee-friendly flowers, particularly in urban areas, which is leading to nutritional deficiencies, chronic exposure to pesticides, and debilitating diseases and parasites. Scientists at the University of Minnesota are using this appropriation to assess options that can be broadly implemented in urban areas to enhance bee pollinator habitat and counteract declining populations and bee health. The effort will examine ways to supplement traditional turfgrass landscapes, particularly in areas



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that primarily serve an aesthetic purpose, with flowering plants that can provide increased nutrition and less potential exposure to pesticides.

Project due to be completed: 6/30/2016