

February 13, 2022

Testimony for State Government Finance and Elections

HF 2618 “Cities Required to allow native landscapes on private land”

Chair: Representative Michael Nelson

I am writing to ask for your support for HF 2618.

I am an entomologist and quite worried about what I observe in the overall decline in the abundance of native insects in MN. I have lived in MN most of my 70 years, and although I was not documenting insect abundance before my research in grad school at the UMN in the 1980's, I am well aware now of the difference in the abundance of both terrestrial and aquatic insects since that time. My research focused on the caddisflies, aquatic insects that are important as bioindicators of water quality. Most researchers studying species richness and relative abundance of insects world wide are finding significant declines. United Nations reports indicate that 40% of pollinators are at risk of extinction in the next few decades; 28% of bumble bees, the most efficient of all pollinators are already declining rapidly, and both western and eastern populations of the iconic Monarch have been reduced by over 90%.

Many aquatic insects spend their immature stages in the water but live on land as adults, so the availability of sustainable aquatic *and* terrestrial habitats is critical to their survival and overall ecological integrity.

All wildlife is intimately dependent on insects: the predatory insects feed on the herbivorous pest insects, insectivorous birds will find food for their young, the insect scavengers will take care of dead organic material, and the pollinators will increase plant fertility and viable seed production.

Property owners that plant more native plants will not only help sustain the insects with which they evolved, but will help reduce the extreme habitat fragmentation has occurred with the urban sprawl and industrial agribusiness. In addition, native perennials produce very deep roots which hold the soil and prevent the erosion that has been a big factor in polluting our city and rural waterways. These strong root systems help filter ground and surface waters and

offer some resistance to the extremes of climate change. Together, tough native plants and the co-evolved insects create ecological health.

Many of us want to provide whatever bit of habitat we can to contribute to the much needed biodiversity that has been weakened by habitat loss, and gardeners and homeowners are in the advantageous position to make a positive impact supporting pollinators and other wildlife. With the typical fertilizers and other chemical inputs used on most residential properties, there are no opportunities for healthy biodiversity, and nothing for beneficial insects - lawns do not provide anything towards biological health.

In this Land of 10,000 Lakes where there are over 6100 water bodies declared officially impaired, many property owners cannot safely drink the water from their faucets, 85% of surface waters tested revealed water contaminated herbicides, chlorpyrifos, neonicotinoids, nitrates, and other inputs, chemical free plantings will be critically important to humans and wildlife. Urban gardens should be an easy and meaningful way to legally help.

Once a diversity of native plants are established, property owners will have few pests and can maintain their gardens with spring clean-up and judicious thinning and trimming as needed. Fertilizers and other synthetic inputs are unnecessary.

With the increasing interest in creating residential properties with pollinator habitat, property values are enhanced when gardens are established with flowering plants blooming in succession throughout the season.

Please give your support to HF 2618.

Thank you,

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References:

Pollinator Decline / Insect Apocalypse:Xerces Society: The science behind the role neonics play in harming bees. Jennifer Hopwood, Aimee Code, MaceVaughan et al. (2016)

https://xerces.org/sites/default/files/2018-05/16-023_01_XercesSoc_ExecSummary_How-Neonicotinoids-Can-Kill-Bees_web.pdf

Three billion birds have been lost in North America since 1970

<https://www.nationalgeographic.com/animals/article/three-billion-birds-lost-north-america>

Pollinator-friendly parks and yards:

<https://www.xerces.org/publications/guidelines/pollinator-friendly-parks>

Pollinator Protection Resolution: Model resolution for cities, counties, state agencies, school districts. Pollinator

Friendly Alliance, Humming for Bees, Pesticide Action Network, Pollinator Minnesota 2020.