

Live Free and Dig

with the Littleton Garden Club

Why convert lawns to nature scapes?

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Native milkweeds are the only plant species on which female monarch butterflies lay eggs and bring forth into the world the monarch caterpillar. Early in their history, natural selection advantaged milkweeds, conferring on them the ability to secrete a toxic chemical in their leaves, which is harmful when eaten by predators. Later in time, the caterpillars were favored with selective advantages, becoming able to eat these leaves safely and, more than this, able to use the ingested chemical, still repellent, against its own attackers. Thus equipped, the caterpillars spent their entire lives on these host plants, munching on leaves until ready to move away from home and onto their next stage of development.

In this setting of milkweed abundance, the monarch caterpillar stopped looking for other food sources. In due course, forces of nature deselected their search capacities, in effect

specifying milkweed as the monarch's sole food choice. In this way, monarchs and milkweeds co-evolved, participating in a mutual relationship, each species in turn applying selection pressure on the other, with monarchs favored over time in becoming specialist feeders.

Would that this were all still as nature had intended. During the last ten years, the copious stands of milkweed once living alongside us have all but disappeared.

By 2020, the US Fish and Wildlife Service acknowledged that the monarch population was seriously

imperiled, ruling that their protection under the Endangered Species Act was warranted. However, the agency has not formally classified the monarch as endangered, deeming 161 other species of a higher priority. In July of 2022, the International Union for Conservation of Nature (IUCN), classified the monarchs as endangered. This organization's Red List of Threat-

ened Species, founded in 1964, is world-renowned as the most comprehensive, accurate inventory of biological species and their respective conservation status.

People who think, study, and write about catastrophic species declines see the potential in reversing them through the conversion of lawn spaces into native plant scapes. According to this research, lawns divert nearly one-third of all water available for current residential use in the US. Lawn maintenance chemicals, even judiciously used, seep into the water, polluting it and harming life forms, including humans who ingest it. In this country, the carbon emissions of lawn maintenance equipment outpace the ability of plants to capture, photosynthesize, and restore carbon in its innocuous forms back to the soil. Plants oxygenate the air and give breath to human life, yet purportedly, lawns produce only a tiny fraction of oxygen compared to native species.

Wildflowers and other native plants still exist in abundance in this rural area, and for us all, are within reach. We are fortunately able to live in the countryside, away from suburban homeowners' associations that promote manicured lawns to uphold property values. Pocketed areas within existing lawns, or along borders, fences, and patio edges can be brought to life with merely a single native wildflower or plant species. Any native plant scape, albeit with a smaller lawn border, clearly shows its presence as intended, proof of good care, and not a sign of neglect. Once established, nature scapes will begin to attract wildlife once abundant.

We can succeed in healing nature's remarkable ecosystems—including habitat, species, and functions.

Littleton Garden Club is an active group in our community. For more information about our club and our meetings, visit: <https://www.littletonn-gardenclub.org/>.