

How Native Plants Sustain Biodiversity and Ecosystem Health

By Coral Huber

Restoring and reconstructing the prairie at Spirit Mound has tremendous benefits for sustaining biodiversity and ecosystem health. Native plants, the flora that naturally occur in a specific region and have evolved over time to adapt to local environmental conditions, play a crucial role in maintaining the health and balance of ecosystems. As human activities continue to impact the environment, understanding the importance of native plants becomes imperative for conservation efforts, biodiversity maintenance, and overall ecological resilience.

Native plants are the foundation of biodiversity in any given ecosystem. They provide the necessary habitat and food sources for a myriad of organisms, including insects, birds, mammals, and fungi. Numerous articles in our previous newsletters describe many of these organisms. A diverse range of native plant species supports a variety of life forms, contributing to the richness and complexity of an ecosystem.

Over centuries, native plants have developed unique adaptations to local climate, soil, and other environmental factors. These adaptations make them well suited to withstand natural challenges, such as droughts, floods, and pests all of which we have experienced since our first efforts to restore prairie at the Mound. The resilience of native plants contributes to the overall stability of ecosystems, especially in the face of changing environmental conditions.

Native plants play a vital role in preventing soil erosion. Their deep root systems help bind soil particles together, reducing the risk of erosion caused by wind and water. Areas



Chokecherry blossoms
(Photo by Norma Wilson)

at the mound experiencing significant erosion have benefitted from the return of native prairie plants. Additionally, native plants contribute to soil health by promoting microbial activity and nutrient cycling. The presence of native vegetation helps maintain the fertility and structure of the soil.

Native plants are often more adapted to the local water conditions, requiring less precipitation than do non-native or invasive species. The continued drought in our region has made reestablishment of prairie species at the Mound difficult, but once established they do persist. Their ability to thrive with minimal water is not only environmentally sustainable but also helps to conserve water resources, a critical consideration in regions facing water scarcity.

Native plants have co-evolved with local pollinators, forming intricate relationships that are essential for both plant reproduction and the survival of pollinator species. Bees, butterflies, and other pollinators depend on native flowers for nectar and pollen for food, and on native plant material for egg laying and larval foraging, highlighting the interconnectedness of these species in maintaining healthy ecosystems.

Native plants often hold cultural significance for indigenous communities. They are deeply intertwined with local traditions, providing not only practical resources but also a sense of identity and connection to the land. Moreover, many native plants contribute to the aesthetic beauty of natural landscapes, enriching our surroundings with unique colors, shapes, and textures in all seasons.

The importance of restoring and reconstructing of the prairie with native plants at Spirit Mound cannot be overstated in the context of preserving biodiversity, maintaining ecosystem health, and promoting sustainability. As we face the challenges of climate change, habitat loss, and environmental degradation, the conservation and restoration of native plant species become a critical component of efforts to protect the natural world. By recognizing and respecting the value of native plants, we take a significant step towards ensuring a harmonious coexistence between human activities and the intricate web of life that depends on these vital components of our ecosystems.



Butterfly Milkweed seed pods
(Photo by Coral Huber)