

Public Abstract

First Name: Donna

Middle Name: Ann

Last Name: Brunet

Degree: MS

Academic Program: Fisheries and Wildlife

Adviser's First Name: Charles

Adviser's Last Name: Nilon

Co-Adviser's First Name:

Co-Adviser's Last Name:

Graduation Term: Fall

Graduation Year: 2006

Title: Butterfly Gardening: Using Volunteers to Provide Data on Flower Use

Butterflies are considered to be good indicators of a healthy environment and reflect the environmental impact of urban development. The popularity of butterflies with the general public and declining butterfly populations, combined with the fact that lawns now occupy more than 12 million hectares in the United States, make a compelling case for a systematic survey of garden butterflies.

This study looked at which species occur in Columbia, Missouri and which nectar sources they use. In addition, surveys examined the attitudes of people toward butterflies and other insects. We also looked at the impact of different lawn maintenance regimes on attracting butterflies to yards.

I recruited volunteers to count butterflies in their yards once a week for 15 minutes from May through September 2002 and 2003. Volunteers observed most of the butterfly species expected in mid-Missouri. In addition to identifying and counting butterflies, they recorded the flowers on which any butterflies landed. Based on a literature search, flower genera were categorized as "recommended" or "not recommended" for use in butterfly gardens. Approximately 90% of the butterflies that were observed on flowers each year were on genera typically recommended for use in flower gardens. Genera most heavily used included *Asclepias*, *Buddleja*, *Coreopsis*, *Echinacea*, *Eupatorium*, *Liatris*, *Rudbeckia*, *Salvia*, *Sedum*, *Tagetes*, *Trifolium* / *Melilotus* / *Medicago*, *Verbena*, *Zinnia*. Yards in which homeowners tolerated a more "weedy" appearance had both more butterflies and more species per count.