

Urban Pollinator Gardens: Benefits and Barriers to Protecting the Bees

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Introduction

Pollinators are an important species to ecosystems around the world, and their service of pollination provides humans with a productive food system. Unfortunately, pollinators, both managed honeybees and wild species are facing a decline in population numbers across the globe. This decline is thought to be the results of a cumulative affect of many different causes. Two of the main causes for this decline are pesticide use and habitat loss in both agricultural and urban areas. Effective approaches that urban landowners can adopt to support pollinators are by implementing pollinator gardens into their property and reducing or eliminating pesticide use. Cities also have the possibility of adding such gardens to public green spaces and reducing their pesticide use. My research focuses on urban landscapes, and questions what are barriers to the creation of pollinator friendly habitat in urban areas, and what are solutions to those barriers. These barriers include, but are not limited to pesticide use, the American ideal of the Lawn, a commonly held fear of bees and wasps, and city codes and neighborhood covenants.

Methods

To explore the barriers to pollinator gardens, I reviewed literature on pollinators and pollinator gardens to understand the issues that prevent the popularization of implementing these gardens in urban areas, and the possible causes and the potential solutions to these barriers. In addition, I used a case study of St. Cloud, MN and the city codes of the city and the surrounding “suburbs”, including Sartell, Sauk Rapids, St. Augusta, St. Joseph, and Waite Park. This case study was intended to examine how city codes may influence the friendliness of these towns towards private and public land having portions turned into designated pollinator gardens, and to see if there are any specific codes that would discourage or possibly prohibit landowners or the public from creating pollinator gardens. In addition, I explored examples of policies or initiatives that other cities in



Figure 1: Example of a typical ideal American lawn



Figure 2: Example of a pollinator garden in a yard

Table 1. Barriers and Solutions to Implementing Pollinator Gardens

Barriers:	Causes:	Solutions:
Pesticide Use	<ul style="list-style-type: none"> • Cultural popularity of chemical pest control • Want of pest-free lifestyles, pleasant outdoor experiences • Agricultural use 	<ul style="list-style-type: none"> • Education and popularization of alternative pest control options • Understanding of importance of some “pests” • Alternative agricultural pest control • Banning neonicotinoids
The American Ideal of the Lawn	<ul style="list-style-type: none"> • The American Dream—house and beautiful lawn • Knowledge of how to tend • Wild/natural areas/gardens are messy, take a lot of work 	<ul style="list-style-type: none"> • Education on alternative landscaping options for yards • Encouragement from cities and organizations for adopting other landscaping options
Fear of Bees and Wasps	<ul style="list-style-type: none"> • Allergies • Stinging risk • Perception of bees and wasps being pesky, annoying, dangerous-must be careful around, especially with children 	<ul style="list-style-type: none"> • Education on bees and wasps, differences between the two. • Use of specific plants that attract bees, butterflies and other less harmful pollinators than wasps
City Code or Covenants	<ul style="list-style-type: none"> • Some cities have restrictions on boulevard plantings • Plants in yards, even occasionally gardens, must not be over a certain height (10-24” is common) • Some neighborhood covenants don’t allow landowners to have gardens, landscaping specifications very exact, binding. 	<ul style="list-style-type: none"> • Cities promoting gardens – rain, pollinator, and others, especially in public areas that otherwise would just have grass • Exceptions on height requirements, allow stalks over winter for pollinator gardens as habitat for pollinators

Results and Conclusion

In my research, I have found that these barriers to the creation of pollinators often have solutions that are not easily achieved. Ultimately, many of these barriers stem from societal and cultural norms or trends, and solutions to many of these barriers may be achieved through a change in mindset of the American citizens, which may be progressed through education. Cities that are adopting pollinator friendly initiatives are very important in working to create more pollinator-friendly urban areas, and to influencing their citizens. In the end, education about both pollinators and how and why to implement pollinator gardens may be key towards

Sources

Figure 1: <http://www.apartmenttherapy.com/underused-unifo-150531>
 Figure 2: <http://www.xerces.org/pollinator-conservation/gardens/>