



Abstract

The goal of our project is to raise the native biodiversity index by increasing the amount of native plants used on campus and by landowners in surrounding areas. We will achieve this through the creation of a website which provides users with a variety of native plant species and suggestions for replacements. This will also raise awareness about the problem of diminishing native biodiversity and encourage the use of native plants in landscaping.

Problem

- The use of non native species in landscaping diminishes native biodiversity. These plants do not support other organisms and can have widespread negative effects.
- Non-native plants displace native plant communities and have the potential to radically change the nature of the habitats which they invade (Ericson, 2012).
- 42% of the nation's endangered and threatened species have declined as a result of encroaching exotic plants (Westbrooks, 1991).

Non Native vs. Native Plants



Day Lilies

- Short bloom time
- Smaller
- Poisonous
- Doesn't host native pollinators



Wood Lily

- Larger
- Supports native pollinators
- Blooms for months
- Attracts hummingbirds
- Has medicinal uses

Day lilies are a non native plant commonly used in land scaping (Quadell, 2005).

Wood lilies are a native plant species (Wasowski, 2000).

Project Goals

- Create a user friendly interface for finding a native alternative for landscaping.
- Increase the amount of native plant species used in landscaping on campus.
- Raise the native plant index of Worcester as a whole and assist native insect populations.

Methods

Phase 1

Research native plant species in the Worcester Area.

Phase 2

Interview professionals in the field of Botany.

Phase 3

Create a field guide of native plant species.

Phase 4

Design an online native plant database.

Phase 5

Talk to WPI about their landscaping decisions.



Mountain Laurel is a native evergreen shrub which blooms gorgeous flowers in the late spring. It is a perfect native plant for landscaping (Patrick, 2016).

Conclusion

Creating Resources

We designed a database which allows the user to identify the best plant species for their needs.

Implementing Solution

We have contacted WPI and suggested increasing the amount of native plants used for landscaping around campus.

Going Forward

We hope to encourage the use of native plant species in Worcester, and increase the level of native biodiversity.

References and Acknowledgments

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