Xerces Society

Team Eureka

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Xerces Society for Invertebrate Conservation

- Xerces is the name of the first known extinct butterfly, due to human activity, Xerces Blue.
- An international nonprofit organization that protects the natural world through the conservation of invertebrates and their habitats

Xerces Society for Invertebrate Conservation

Core Programs Focus

- Habitat conservation and restoration
- Species conservation
- Protecting pollinators
- Contributing to watershed health
- Reducing harm to invertebrates from pesticide use

Pollinators

Pollinators	Pollinating Varieties
Hummingbirds	Plants having tubular red, yellow and orange flowers.
Moths & Bats	Nocturnal blooms with heavy fragrance and large amount of diluted nectar.
Butterflies	Since they cannot feed while flying, they select flowers based on the shape.
Bees	Efficient Pollinators, Focus on one specific flower at a time.
Beetles	Fragrant flowers which is large and bowl shaped.
Flies	Putrid smelling blossoms.
Wasps	Coevolved in fig plants, 900 species of fig plants with own species of wasps in it.

Nebraska's At-Risk Pollinators

Butterfly	Moths	Bees
Monarch	Whitney Underwing	Southern Plains Bumble Bee
Bucholz Black Dash	Married Underwing	Variable Cuckoo Bumble Bee
Regal Fritillary		Suckley's Cuckoo Bumble Bee
Colorado Rita Dotted-Blue		Hunt Bumble Bee
Iowa Skipper		American Bumble Bee
Mottled Duskywing		Western Bumble Bee
Two-spotted Skipper		Yellow Bumble Bee
Ottoe Skipper		Morrison Bumble Bee

Project Overview

- Conservation Resource Program by Natural Resources Conservation Service (NRCS)
- Farm Bill Pollinator Conservation Planner Ms. RaeAnn Powers
- 20 Plots across Nebraska within 3 regions
- Each Plot divided into 2/3 Transects
- Each Transects divided into 10 equally sized quadrats

Project Data Review

6 Data Sets

- Site
- Vegetation (Veg)
- Macro
- Visit
- Seed
- Species

Project Research Questions

1. How has the variables associated with the site contributed to the success or failure of the site?

2. How does the factor of being native versus non-native affect the plant growth of species in the fields tested?

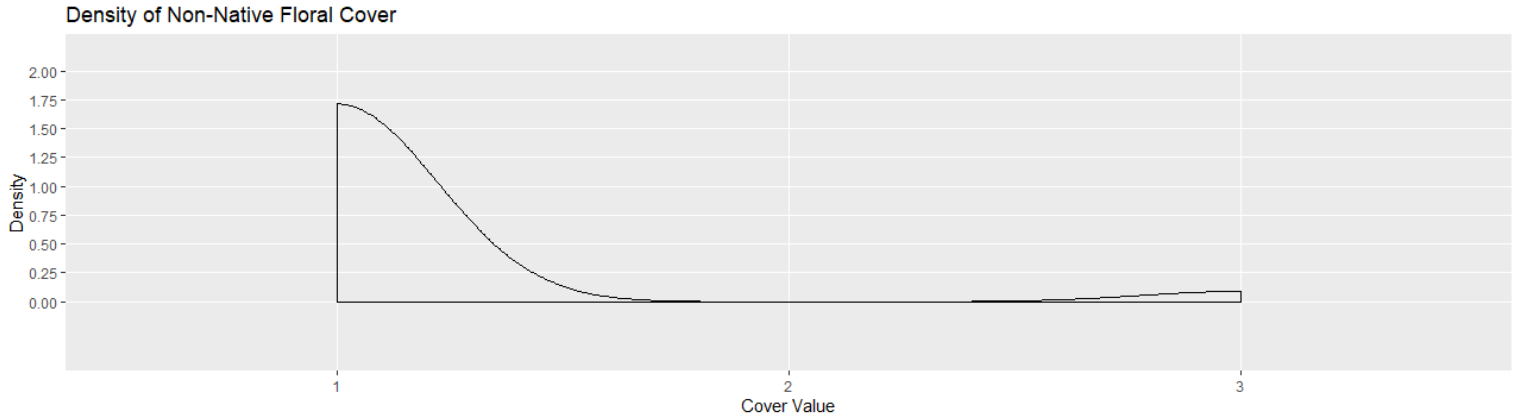
3. Do certain plant families show a greater cover value than others plant families?

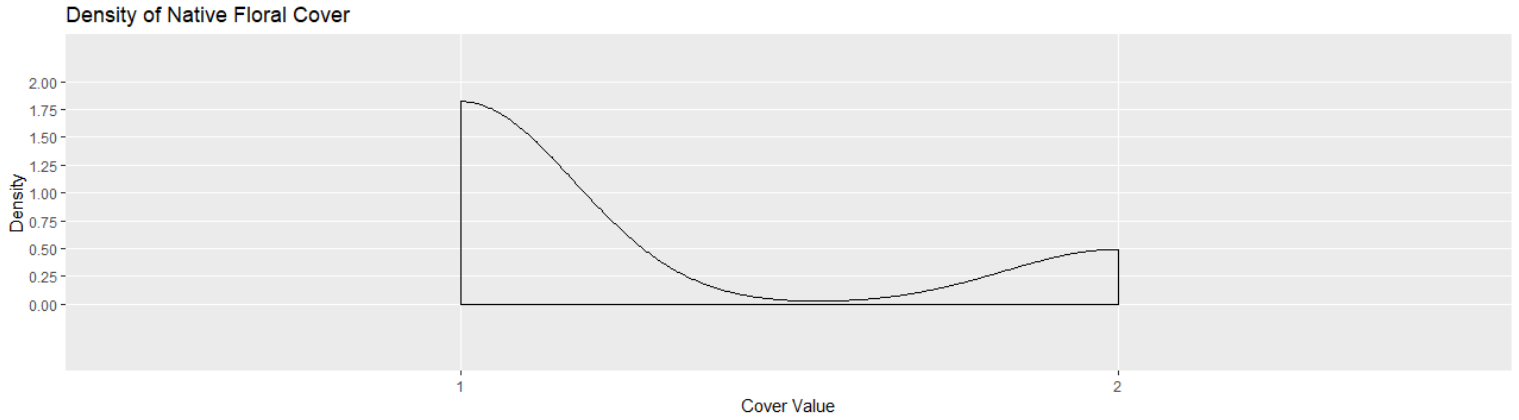
4. Does the average Coefficient of Conservatism of the species planted in each field contribute to the success of failure of the field?

Site Variables

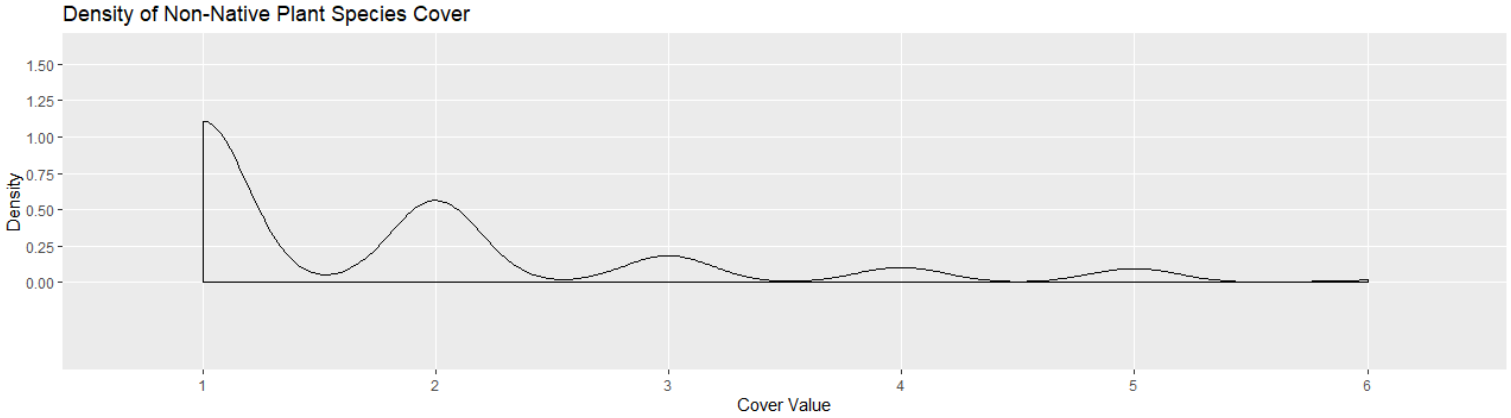
- Region
- Surrounding Landscape
- Size of site
- Pure Live Seed per acre
- Seed Vendor

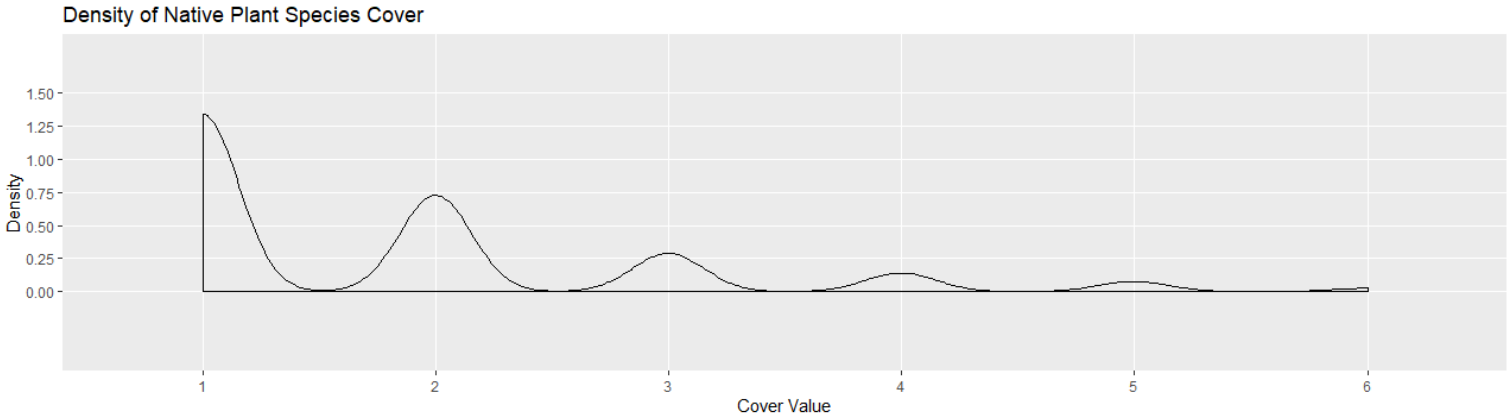
Native versus Non-native affect the plant growth



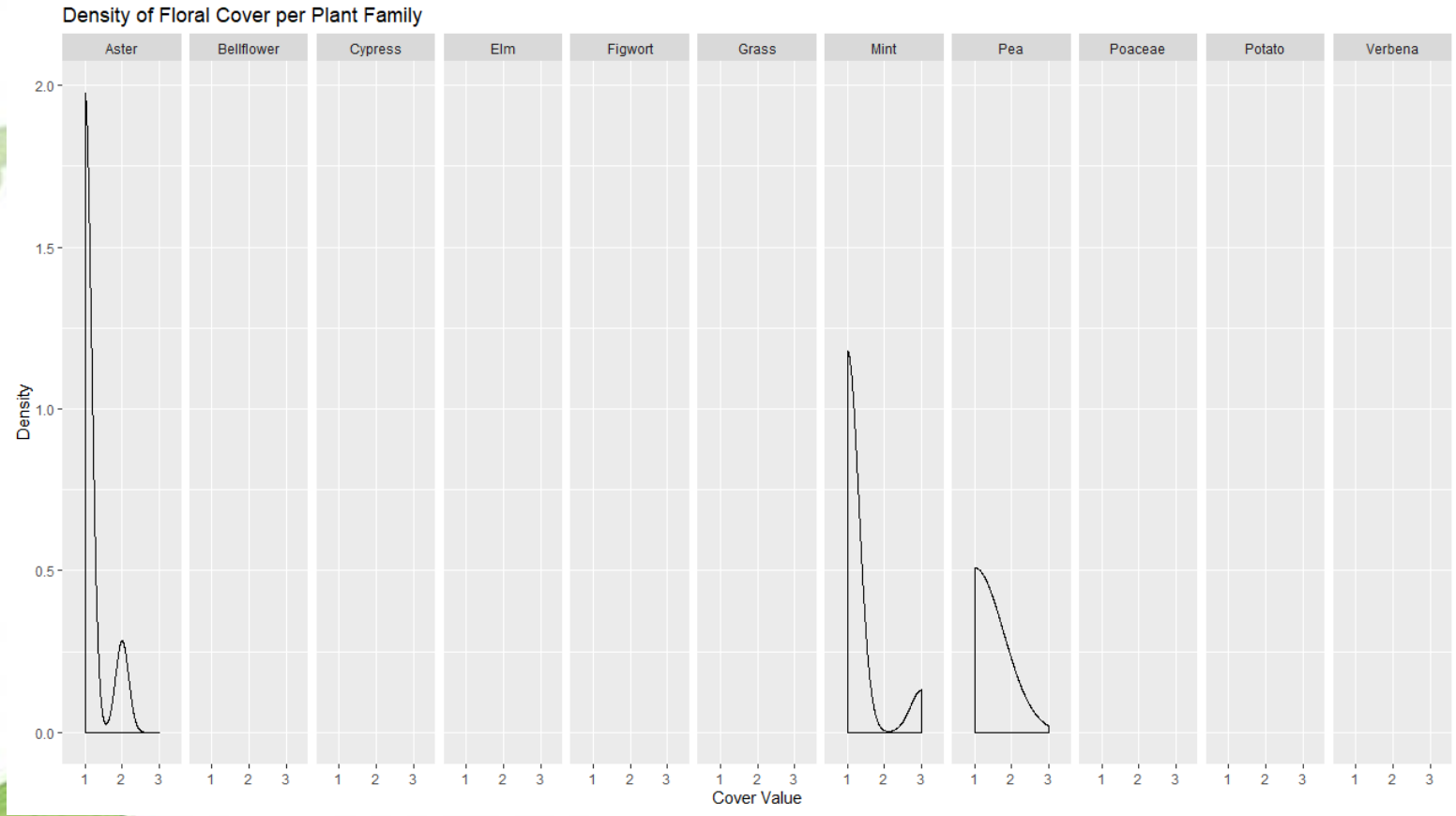


Native versus Non-native affect the plant growth





Comparison of Plant Family and Cover Value



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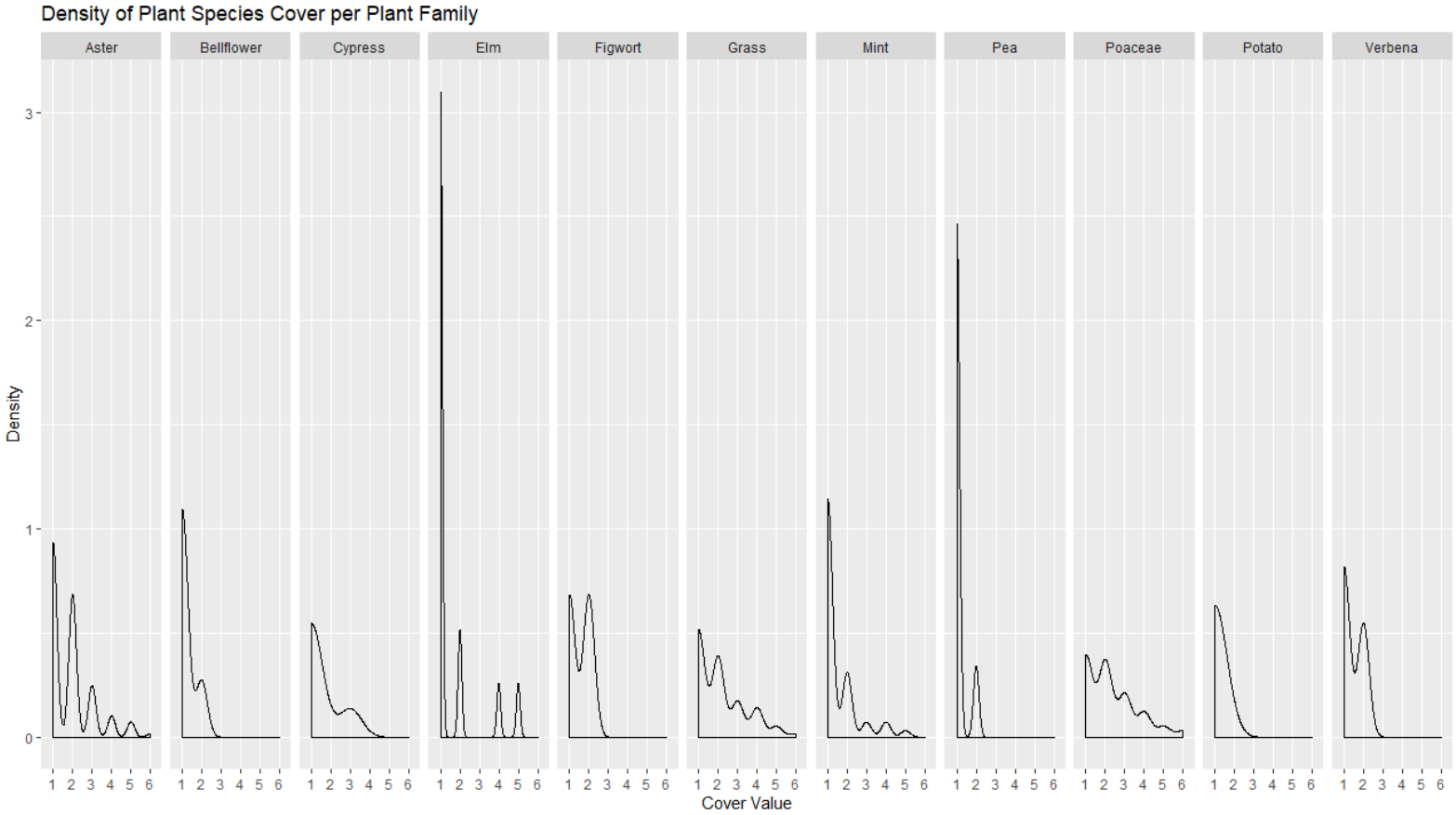
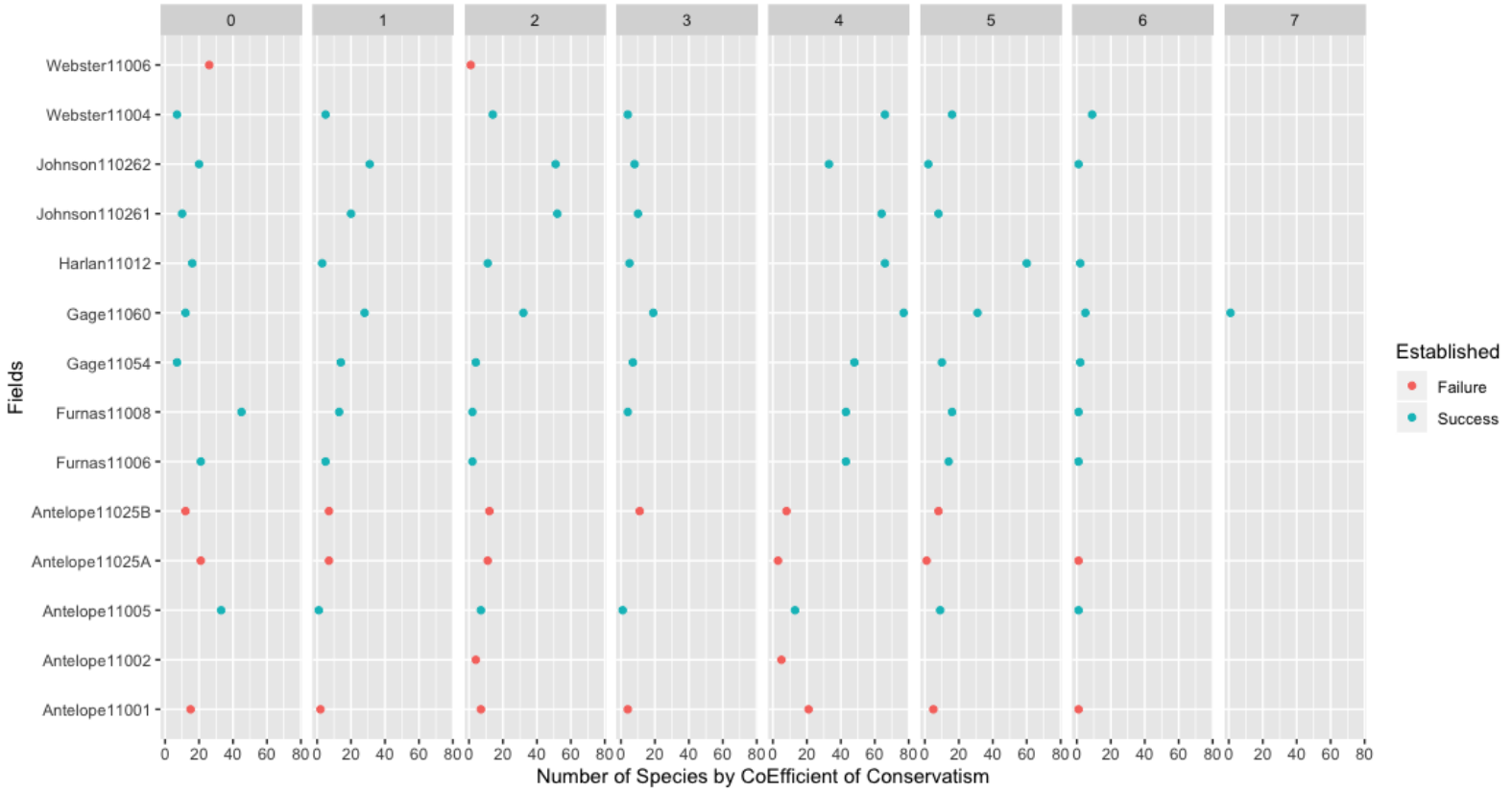


Coefficient of Conservatism



Conclusions

Our Conclusions ….

- Review the Seed Vendors
- Native Plants Thrived over Non-native Plants
- Planting plants in the range of 4 and 5 Coefficient of Conservatism could add to the success of the site
- Plants in the families of Aster, Grass and Poaceae showed the highest densities of a 6-cover value