

NATIVE PLANT REINTRODUCTION AND EFFECTIVE REMOVAL TECHNIQUES FOR *Microstegium vimineum*

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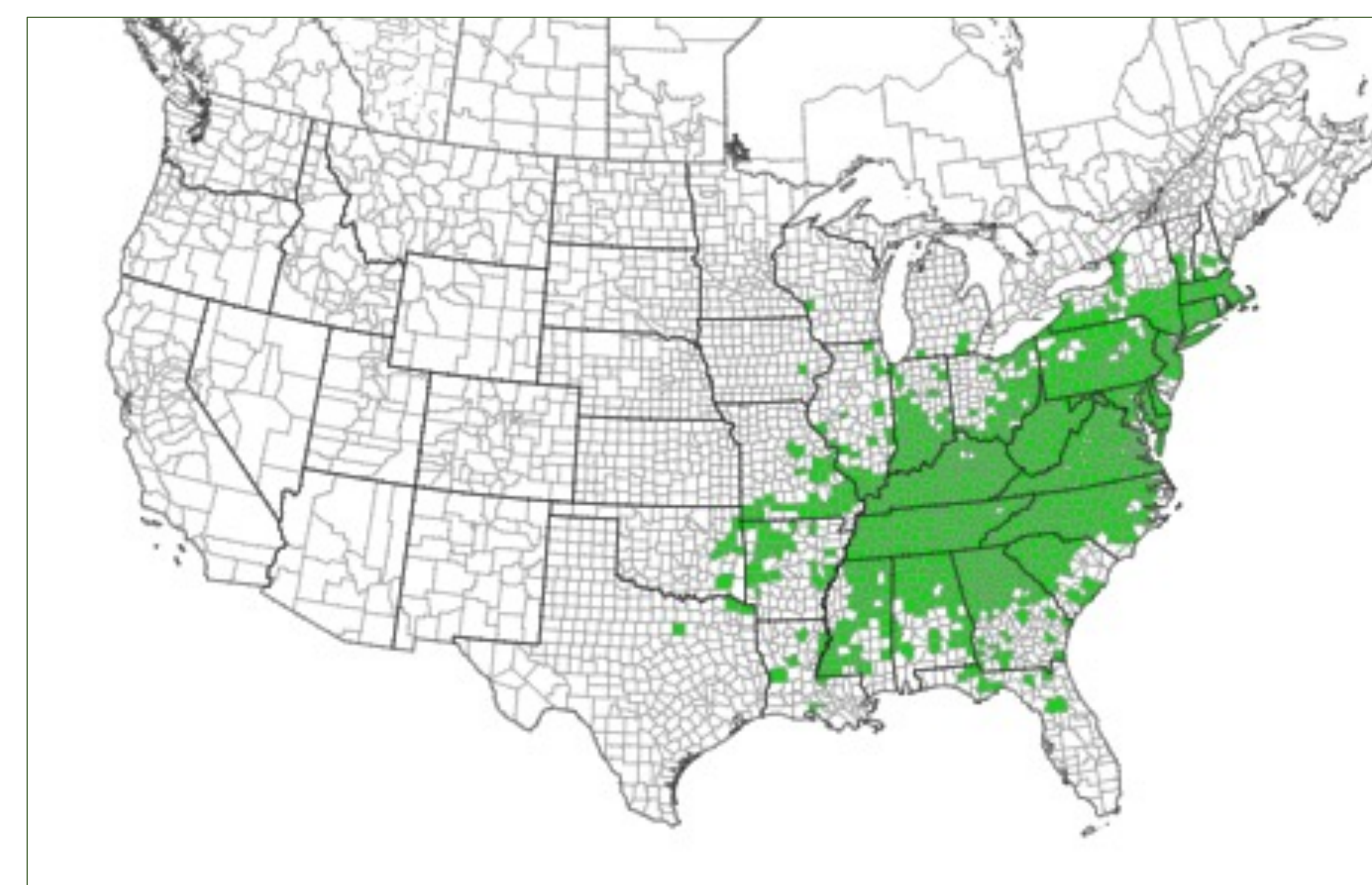
Materials and Methods

3 methods were used to remove the Japanese Stiltgrass: Mechanical hand-pulling, Chemical herbicide (homemade), and Shade Cloth. There were 3 site locations, with 4 6' x 6' plots in each site. Native plant catalogs were examined to find suitable candidates for introduction, including Swamp Milkweed, Cardinal Flower, Goldenrod, Bee Balm, Pennsylvania Sedge, and three Aster species.

Background

Invasive species threaten the health of many of our most important natural spaces. *M. vimineum*, or Japanese Stiltgrass, has invaded much of the East Coast of the United States, and without dedicated restoration efforts, it will continue to spread rapidly. Japanese Stiltgrass is a shade-tolerant annual grass that can produce 100s of seeds in a year which may lie dormant in soil for up to 3 years.

Native plants play a specific and vital role in their ecosystems. Their reintroduction to invaded zones is imperative. By combining the most effective removal method with the most successful native plants, restoration should become more rewarding and efficient.



Results and Conclusions

The most successful native plant species were Swamp Milkweed and Cardinal Flower, determined by the greatest percent change in height. Pennsylvania Sedge, measured by diameter, was also very successful at establishing. The most important factor in determining success was treatment, with Cardinal Flower performing best in Mechanically treated plots, and Swamp Milkweed performing best in Shade Cloth treated plots.

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