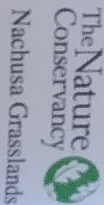


The Efficacy of Controlling *Lonicera maackii* (Amur honeysuckle) with Basal Bark Herbicide Application

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Introduction

• *Lonicera maackii* (Amur honeysuckle) is an invasive shrub in the Midwestern United States that infests many savanna, woodlands, and grasslands.

• *L. maackii* has traits that make it a strong competitor: it can dominate the shrub canopy, leaving ground layer plants with much reduced sunlight.

• This shrub is difficult to eradicate. A variety of methods have been attempted, but those that are effective tend to be incredibly laborious or damaging to the surrounding habitat.

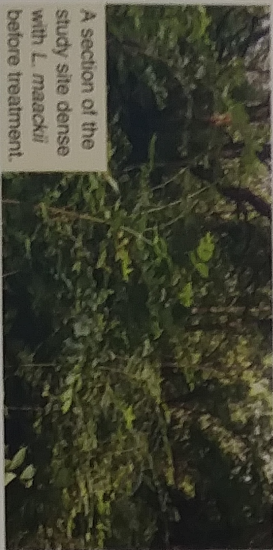
• This study looks at the efficacy of basal bark application, where a mineral oil solution of herbicide is sprayed on the bark without cutting the plant.

Methods

The control and two treatments were applied in each study plot at the same time period by randomly walking through the study plot. Treatments applied from May 22 -25, 2014.

- 1) The control: live shrubs were chosen and marked with a stripe of orange paint and left as is.
- 2) Mineral oil only: To see if the carrier had any effect on mortality, live shrubs were marked with yellow paint and then mineral oil was applied to all stems of each shrub with a backpack sprayer.
- 3) Basal bark: live shrubs were marked with blue paint and basal bark herbicide with mineral oil carrier was applied to all stems with a backpack sprayer.

Data collected: On September 13/14, 2014, almost four months after treating, the results were gathered. Each plant was flagged with tape after recording so as not to repeat data.



Results

Basal bark application with triclopyr in the growing season yielded 100% mortality. Applying mineral oil without herbicide had little or no effect on the shrub. Nearly all the control survived. The herbicide was effective on all sizes of *L. maackii* encountered.



Conclusions
Advantages of basal bark application:
• Basal bark kills a smaller area of surrounding desirable plants than foliar spraying due to the wide spray pattern of the foliar herbicide on tall shrubs.
• Basal bark application is quiet, safe, and efficient. Cut and treat takes more time, is physically demanding, and is hazardous due to the use of cutting tools.
• Basal bark has no soil disturbance, whereas manual or machine pulling of the plant root does.

This study demonstrated the efficacy of basal bark herbicide application on invasive *Lonicera maackii* (Amur honeysuckle) shrubs during the growing season (May). Resulting in 100% mortality in all sizes of the shrub.

