

**WIU CENTENNIAL HONORS COLLEGE**  
**Thomas E. Helm Undergraduate Research Day 2022**

**Abstract**

Poster

Major Biology

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**Comparison of Commonly Available Herbicides in respect to *Lonicera maackii* (Amur Honeysuckle) Control.**

**Collin Reed**

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The invasive shrub species *Lonicera maackii* or Amur honeysuckle is a prolific plant residing in many habitats with conditions ranging from deep sun to severe shade and wet to dry climates. The problem facing management specialists is to identify an effective method of species control that can be applied on a wide scale with little to no adverse effects or environmental costs. This research sought to compare and test the commercially available herbicides of Roundup Poison Ivy & Tough Brush Killer and Tordon RTU to identify the most effective herbicide treatment across a range of xeric (dry), mesic (medium moisture levels), and hydric (wet) landscapes for use by landowners that has limited effects on the understory plants. At each location, a 30-meter transect was set up and from the midline of each transect 3x3 quadrats were placed on the ground at every 3 meters in an alternating right and left pattern. Each quadrat was inventoried of all covering shrubs, grasses, and trees and was assessed for survival every seven weeks. The *Lonicera maackii* inside each quadrat were cut and treated with an herbicide while being assessed for survival each week. Experimental evidence points towards reasonable success in killing *Lonicera maackii* plants in each transect using the herbicide Tordon RTU with the least observed environmental disturbance of understory plants in each transect faster than its contemporary herbicide Roundup Poison Ivy & Tough Brush Killer.