

Successful restoration depends on invasive plant control method

Plant invasions can reduce biodiversity and alter ecosystem functions. Land managers expend much time and resources to remove invasive plants and restore native communities. However, removal method can affect native plant recovery. Flory and Clay (Indiana University) demonstrate that the method used to control plant invasions can strongly affect restoration of native plant communities. At field sites throughout southern Indiana, USA, they evaluated how plant communities responded to removal of the highly invasive annual grass *Microstegium vimineum* (Japanese stiltgrass). *Microstegium* was removed by hand weeding or by two different herbicide treatments, and native plant responses were compared to control plots where the invasive species was left intact. Native plant diversity and tree regeneration increased dramatically following *Microstegium* removal, indicating that invasions were greatly suppressing native species. But Flory and Clay found that native plant responses differed significantly among the removal methods, as well as among growth forms (grasses, herbs, ferns, etc.). A grass-specific herbicide was the most effective method for killing standing *Microstegium* while allowing the greatest recovery of native plant species. Thus, invasive plants suppress native plants but the method of invasive plant control affects the restoration of native plant communities.