

NATIVE AND INVASIVE PLANTS IN THE HERBACEOUS LAYER OF FORESTS IMPACTED BY EMERALD ASH BORER. Wendy Klooster, Catherine P. Herms, Kathleen S. Knight, Kamal Gandhi, Annemarie Smith, Daniel A. Herms and John Cardina, The Ohio State University, Wooster, OH 44691, USDA Forest Service, Northern Research Station, Delaware, OH 43015; Ohio Department of Natural Resources, Division of Forestry, Columbus, OH 43229 (72)

Disturbed areas are highly susceptible to colonization by invasive species. We are studying invasive plant colonization in forests experiencing canopy gap formation due to emerald ash borer (EAB; *Agrilus planipennis*) induced ash (*Fraxinus* spp) tree mortality. The emerald ash borer killed nearly all ash trees in southeastern Michigan, and is expected to continue to spread throughout eastern forests. Since ash trees typically grow as individuals in stands dominated by other tree species, they create canopy gaps when they die, potentially facilitating invasion by exotic plant species. We established plots in seven state or metro parks in southeast Michigan that have extensive public forested lands (Highland, Hudson Mills, Indian Springs, Island Lake, Kensington, Pontiac Lake, and Proud Lake). Plots were grouped into hydrological classifications based on the dominant *Fraxinus* species present: hydric (*F. nigra*), mesic (*F. pennsylvanica*) and xeric (*F. americana*). Within each plot, we counted seedlings in four 4 m<sup>2</sup> quadrats placed 8 m from the center in each cardinal direction. All woody species less than 1.3 m tall and 2.5 cm diameter were counted; individuals were distinguished as either new (having cotyledons) or established (having over one year's growth). Percent cover was estimated for each species, and diversity indices were calculated for species in the 4 m<sup>2</sup> quadrats. Plots in hydric environments had more species (19), more abundant species (9), more very abundant species (6.5), and greater evenness (0.67) than plots in mesic and xeric settings. The most abundant native species in the plots, regardless of hydrological classification, were *Fraxinus* species (grouped by genus due to difficulties in classification at the seedling stage); the most abundant invasive species was *Rhamnus cathartica* for the hydric and mesic plots, while *Rhamnus frangula* was most common in xeric plots.