THE ROLE OF LANDSCAPE AND LOCAL FACTORS IN PLANT INVASIONS. Kevin D. Gibson, Assistant Professor, Department of Botany & Plant Pathology, Purdue University, 915 West State Street, West Lafayette, IN 47907

The invasion of sites or patches within a fragmented landscape like that found in the North Central region has two primary components. First, propagules of an invasive species must disperse from the regional species pool to a local site. Second, the species must establish and persist at the local site. Whether a species successfully invades a site depends on the interaction between propagule pressure (i.e. dispersal) at the landscape level and persistence at the local level. A number of hypotheses have been advanced to explain the success of plant invaders. Most of these focus on biotic interactions (competition, herbivory, parasitism, mutualisms, etc.) between invaders and native species that affect persistence. However, relatively few studies have addressed the effect of landscape factors such as patch size and connectivity on plant invasions. We will discuss the importance of dispersal and landscape factors to the invasibility of forests in the North Central region.