

STUDENT RESEARCH WEEK

POSTERS · TALKS CREATIVE WORK

First and second year survival of invasive garlic mustard (*Alliaria petiolata*) in Edmonton

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Abstract

Garlic mustard (*Alliaria petiolata*) is a highly invasive plant species first discovered in Edmonton, Alberta in 2010. It can be found in 37 US states and 7 Canadian provinces. Garlic Mustard may pose a serious threat to the native flora that inhabit Edmonton's North Saskatchewan River Valley which compromises a large area of highly connected forested natural areas. Under the Alberta Weed Act, garlic mustard is listed as a prohibited noxious weed meaning it must be controlled. Invasive species is known to have complex population dynamics, but no data has been published from this region. The objective of this research was to assess garlic mustard survival in both the first and second year of growth. Garlic mustard survival was recorded on a biweekly basis from early spring to fall in first year plants. We observed high survival in first year plants in both years, while second year survival was more variable. These results may suggest greater potential for population growth in this region. An understanding of population dynamics is critical to supporting an understanding of the population growth potential of garlic mustard in this region and informing management decisions.