



2018 JOINT CONFERENCE



October 15-18, 2018
Mayo Civic Center
Rochester, MN

**ABSTRACTS AND
AUTHOR BIOGRAPHIES**

Genetic and Ecological Comparisons Between Native and Invasive Populations of Common Buckthorn

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A collaborative project between the University of Minnesota Landscape Arboretum and the Belarus National Academy of Science was initiated in 2016 to compare plant species that are invasive in Minnesota but are native to Belarus and visa versa. Common buckthorn (*Rhamnus cathartica* L.) was among four species selected for ecological and genetic comparisons. *R. cathartica* populations were estimated and samples were collected for DNA analysis at two sites in Belarus, two sites at the Minnesota Landscape Arboretum, and one site at the University of Michigan Nichols Arboretum in Ann Arbor, Michigan. Plant communities were also surveyed at each site and compared for ecological diversity. Based on the variation frequencies of microsatellite markers it was shown that overall genetic variability of the introduced populations (Minnesota and Michigan) was slightly higher compared to the natural populations of Belarus; and, intrapopulation diversity was higher in Upper Midwest populations than Belarus populations. Furthermore, heterozygosity was higher at an undisturbed site at the Minnesota Landscape Arboretum than at a nearby restored site.

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Low between population differentiation of US locations compared to native could suggest the high rates of intermixing of genetically distinct material and could be a result of multiple introduction events. Ecological diversity comparisons between US Upper Midwest and Belarus populations show differences in ecotypes and stronger inter-species competition in Belarus. Differences in soil factors between Belarus and the Upper Midwest will also be discussed.

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