

First-Year Research in Earth Sciences: Dunes

FYRES: Dunes Research Report: Wierenga, Matt, Caleb E. Boraby, Cameron S. Doan, Tanner J. R. Huizenga, and Hunter Pham. 2017. "Distribution of Oak Trees on North Ottawa Dunes." FYRES: Dunes Research Report #28. Grand Rapids (MI): Department of Geology, Geography and Environmental Studies, Calvin College. 12 p.

Abstract: Hardwood forests across the Midwest are threatened by invasive pathogens such as oak wilt. One of the most sensitive areas to vegetation loss are the forested dunes along Michigan's coast. Our study investigated the forest properties of North Ottawa Dunes. Using Trimble GPS devices tree locations, health, and species were recorded. This data was then entered into ArcGIS for analysis. Roughly a third of recorded trees were oaks with 96% of the oaks belonging to the species red oak. Oak trees were concentrated in inland flat environments. No new oak wilt infections were recorded in our sampling sites. The concentration of red oaks in the wooded dune areas may be detrimental to manager efforts to prevent the spread of oak wilt in North Ottawa Dunes park.