

# First-Year Research in Earth Sciences: Dunes

**Conference Presentation:** Williams, Matthew Lee, Anna Clousing, Samuel Latimer, Jennifer A. McClellan, and Andrew D. Van De Walker (2015). “Access denied? Physical accessibility of West Michigan’s coastal dunes.” Annual Meeting of the Michigan Academy of Science, Arts, and Letters, Saginaw Valley State University (University Center, MI), 4 March 2016; poster.

**Abstract:** As the North American population ages, researchers are beginning to ask questions about the accessibility of natural environments. However, no such studies have focused on dune environments. This study investigated the physical accessibility of west Michigan coastal dunes by examining the recreational trails at four Ottawa County Parks. We developed a weighted rating scale to examine different physical trail aspects. We applied the rating scale to recreational trails by collecting data on trail length, location, rest areas, parking lot connections, signs, trail width and slope angle. We also assessed the aesthetic experience of each trail by collecting data on dune environments and scenic views. The rating scale performed well in our field test and was able to distinguish between trails that were marked as accessible on maps and those that were not. The accessible trails scored higher on our rating scale, but they tended not to lead people to dune crests, views of the lake and a variety of dune environments. These results suggest that the aesthetic experience on west Michigan coastal dunes is not equally accessible to all people. Park managers should consider implementing trails that give all visitors equal access to high quality dune experiences.