

## First-Year Research in Earth Sciences: Dunes

**Conference Presentation:** Millen, Noah, Aubrey Rudy, Jillian Herlinger, Julia Machiela, and Ethan Tulp. 2021. "A cumulative look at Michigan dune management." Annual Meeting of the Michigan Academy of Science, Arts, and Letters, Virtual Conference hosted by Alma College, Michigan, 12 March 2021; poster presentation.

**Abstract:** Often dune management is a trial-and-error process focused on a specific site, but cumulative knowledge of multiple sites and management experiences is essential for making good regional management decisions. This study aims to build a more comprehensive understanding of dune management in Michigan by collecting and applying data on the prior experiences of dune managers. Methods included using an online questionnaire to collect responses from managers in private and public dune areas. The survey contained questions regarding what strategies (sand fences, use of vegetation, boarded walkovers, etc.) are being used where, and with what level of success. The survey also questioned dune managers about their career and educational history related to managing dunes. Results showed that the most popular dune management strategy was a boarded walkover, followed by use of vegetation. Sand fencing was rated to be the most effective strategy. Most dune managers had a bachelor's degree and ranked themselves at a moderate level of efficacy. Many dune managers responded that they did not expect to be managing dunes when they took their current position. These results suggest a statewide lack of accessible, formal, and organized training in the field of dune management.