

Tracking biodiversity in Lake Michigan's interdunal wetlands



CORE QUESTION:

What lives in wetlands that form between Lake Michigan's dunes?

VULNERABLE AND DIVERSE

Many of West Michigan's coastal dunes house sensitive and complex wetland ecosystems. These wetlands form in the troughs between dunes where conditions are characterized by one constant: change. Water levels can fluctuate widely throughout the year. Wind both deposits and erodes sand continuously, and sunlight reflected by the surrounding dunes can bake the wetlands with radiant heat. Human and vehicle traffic can cause serious damage.

Additionally, these interdunal wetlands support some of Michigan's vulnerable, threatened, and endangered plants, insects, and animals. They serve as important stopovers and foraging grounds for migrating shorebirds, waterfowl, and songbirds. And the wetland communities are diverse and vary geographically. A preliminary study in Ludington State Park showed only a 24 percent overlap in species identified in two interdunal wetlands — even though the wetlands were fewer than 750 feet apart.

GETTING THE LAY OF THE LAND

Despite their ecological significance, interdunal wetlands on the eastern coast of Lake Michigan have never been thoroughly inventoried. Tiffany Schriever, an assistant professor of biological sciences at Western Michigan University, will lead a study of the distribution patterns

of amphibians, reptiles, and aquatic insects in these interdunal wetlands.

Schriever will focus on an area between Mackinaw City in the north and Indiana Dunes National Lakeshore to the south. She and her team will flag areas of high diversity and assess movement of organisms among neighboring wetlands to determine how communities are connected or isolated.

This project will help shoreline managers make more informed decisions about how — and why — to protect these ecosystems. The research will equip educators to help students and visitors understand what makes these wetlands so unique.

CONTACT

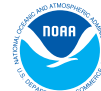
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