

The Ecological Importance of The Ridges Sanctuary

The Ridges Sanctuary is named for its distinctive topography – a series of 30 ridges and swales formed by the movement of Lake Michigan over the past 1,400 years. The Ridges Sanctuary is constantly bathed by cool humid air on southerly breezes off Lake Michigan creating an isolated pocket of boreal forest located far south of the continuous span of boreal forest bordering Lake Superior in Wisconsin. As a result, spring arrives late and summers are short. Its unique topography and climate allows the Baileys Harbor ridge and swale complex to include a wide range of environmental conditions, creating a highly biodiverse ecosystem.

Nearly 500 different species of plants, including 25 species of native orchids, populate the varied habitats. Over 60 species of breeding birds and 12 threatened or endangered species, including the federally endangered Hine's Emerald dragonfly and state threatened Dwarf Lake Iris and Ram's-head Lady's-slipper can also be found in this area.

The Ridges has received a number of designations due to its ecological importance, including:

State Natural Area (1953): The Ridges Sanctuary encompasses a diversity of unusual habitats, resulting in one of the greatest concentrations of rare plants in the Midwest. The preserve was established in 1937 as Wisconsin's first area set aside to protect native flora. The natural area consists of about 30 narrow, crescent-shaped sandy ridges and recent research has correlated the ridge formation with the cyclical changes in Lake Michigan water levels which have occurred during the past 1,400 to 1,500 years. Each ridge represents a former beach line of Lake Michigan and took an average of 30 to 50 years to form. The narrow ridges are forested with black spruce, white spruce, balsam fir, and white pine with wet swales between the ridges. Swamp conifers occupy some of the swales while others are filled with marsh and bog flora. Sections of the forest can be classified as boreal and are similar to, but far disjunct from the northwestern Wisconsin boreal forests near Lake Superior. The cool waters of Lake Michigan heavily influence the local climate, allowing many northern species to thrive. Some areas of the ridges are open, wet, and calcareous. The list of rare species found at The Ridges is long and includes 25 species of orchids.

Source: <https://dnr.wi.gov/topic/Lands/naturalareas/index.asp?SNA=17>

National Registry of Natural Landmarks (1967): In 1967, The Ridges Sanctuary became the first Registered Natural Landmark in Wisconsin. The designation was expanded in 1974 to include the DNR Mud Lake Wildlife Area and Toft Point which is owned by UW-Green Bay. The Ridges/Toft Point/Mud Lake area is one of only 18 Natural Landmarks in Wisconsin and includes over 3,000 acres. The area is described as a series of sand ridges and swales with associated boreal forest and bog vegetation. The site contains unusually high species diversity, as well as the best mixed stand of large red and white pine, hemlock and northern hardwoods on the western shore of Lake Michigan.

Source: <https://www.nps.gov/subjects/nlandmarks/upload/NNLRegistry.pdf>

Wetland of International Importance (2014): Consisting of 11,443 acres, the Door Peninsula Coastal Wetlands complex encompasses Europe Lake, Mink River, North Bay, Mud Lake, Ephraim Swamp, The Ridges Sanctuary and other important natural areas located in the towns of Liberty Grove, Baileys Harbor and Gibraltar. The land is owned by the Wisconsin Department of Natural Resources, Door County, the University of Wisconsin-Green Bay, The Nature Conservancy, Door County Land Trust, The Ridges

Sanctuary and private parties. The Convention on Wetlands, or Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resource. The Door Peninsula Coastal Wetlands complex is 1 of 5 Ramsar sites in Wisconsin. There are 39 Ramsar sites in the U.S. and 2,341 sites in the world.

Read more at <https://www.greenbaypressgazette.com/story/news/local/door-co/news/2015/05/12/peninsula-wetlands-deemed-international-significance/27190989/>

LEED Gold Certification (2017): Awarded for its environmentally-conscious design and practical sustainable features, The Cook-Fuller Center is the first Leadership in Energy and Environmental Design (LEED) certified commercial building in Door County. Some features that warranted LEED certification include siting the building on developed property already bordering existing Ridges property; conducting on-site bioremediation of contaminated soils and subsequently using them to reconstruct a ridge on the property; recycling and re-purposing buildings previously on the property; landscaping with native plants; geo-paving the parking lot to control storm water runoff; and, installing a geo-thermal heating and cooling system and high efficiency water fixtures.

Source: The Cook-Albert Fuller Center - A Model of Sustainable Design

A complete list of awards, certifications and designations given to The Ridges Sanctuary are listed at <https://www.ridgessanctuary.org/our-story/designations-awards-certifications/>

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