



**MOONLIGHT BAY & CONNECTED WETLAND TYPES**

Lowland hardwood swamp, coniferous swamp, shrub carr, coniferous bog, open bog, fen, marsh, sedge meadow, ridge and swale

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DOOR COUNTY



**MOONLIGHT BAY & CONNECTED WETLANDS**

Property Owners: WDNR, Ridges Sanctuary, The Nature Conservancy, Door County, University of Wisconsin - Green Bay  
 Recognitions & Designations: Ramsar Convention Wetland of International Importance, WI State Natural Area, WI Land Legacy Place, WI Coastal Wetland Inventory Primary Site, WI Wildlife Action Plan Reference Site, The Nature Conservancy Priority Conservation Area, WI Bird Conservation Initiative Important Bird Area, National Natural Landmark

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wisconsinwetlands.org

**ECOLOGY & SIGNIFICANCE**

This Wetland Gem site encompasses a corridor of highly significant wetland complexes that nearly span the Door Peninsula. This site includes Ephraim Swamp, Baileys Harbor Swamp, Ridges Sanctuary State Natural Area, Toft Point State Natural Area and Mud Lake State Natural Area. From the extensive forested wetlands of Ephraim and Baileys Harbor Swamps that form an important ecological corridor across the peninsula to the ridge and swale topography on a series of former Lake Michigan beach ridges at Ridges Sanctuary, these wetlands are extremely diverse and ecologically valuable. This site supports a tremendous concentration of rare plants and animals, including the federally endangered Hine's emerald dragonfly.

**FLORA & FAUNA**

Ephraim Swamp and Baileys Harbor Swamp are dominated by maple, ash and cedar. Mud Lake, a shallow lake with a truly wild character, is surrounded by extensive shrub and coniferous swamp habitat of white cedar, white spruce, balsam fir and black ash. The lake's margin is sedge meadow dominated by sedges, willows, dogwoods and sweet gale and the marshes are quite diverse with bur-reed, coontail, pondweed, wild rice, softstem bulrush, hardstem bulrush, darkgreen bulrush, tufted bulrush, woolgrass, yellow water lily and cattail. The climate along the Lake Michigan shore is moderated by the lake, allowing more northern species to thrive at the shoreline areas of this site. Ridges Sanctuary, alone boasting nearly 500 plant

species, comprises many former beach ridges separated by wet swales that are characterized by rich marsh, bog and coniferous swamp habitat. Toft Point, a mile-wide peninsula along the Lake Michigan coast hosts extensive calcareous sedge meadow that grades into shrub carr and coniferous swamp dominated by white cedar with occasional paper birch and black ash. Many rare plant species grow at this site, including spoon-leaf moonwort.

This Wetland Gem also hosts a diversity of animals, particularly migratory birds. Bird species recorded at the site include osprey, bald eagle, great blue heron, green heron, marsh wren, sedge wren, swamp sparrow, American bittern, yellow-bellied flycatcher, blue-headed vireo, Caspian tern, common tern, pied-billed grebe, mallard, ring-necked duck, northern pintail, blue-winged teal, Virginia rail and at least 17 species of warblers. Herptiles of the site include green frog, northern leopard frog and painted turtle. A variety of fish use deepwater marsh areas along the shores of Moonlight Bay for spawning habitat. Fish noted at the site include yellow bullhead, northern pike, smallmouth bass and rainbow smelt. This site also supports two rare land snails and the largest known population of the federally endangered Hine's emerald dragonfly.

**THREATS**

Invasive species, including Phragmites (common reed grass), have been documented on site; control and monitoring work may be necessary to prevent their spread. Future invasion by the emerald ash borer beetle threatens the site's ash trees. Heavy deer browsing pressure threatens the regeneration of the site's conifer trees. Increasing development and associated fragmentation and water quality impacts are also of concern for this site.

**ACCESS**

The Ridges Sanctuary offers several hiking trails; visit [www.ridgesanctuary.org](http://www.ridgesanctuary.org) for details. Access information for the other State Natural Areas at this site is available online at [dnr.wi.gov/org/land/er/sna](http://dnr.wi.gov/org/land/er/sna).

**Sources:**

- Wisconsin State Natural Areas Program (WDNR)
- Coastal Wetlands of Wisconsin's Great Lakes (WDNR)
- Wisconsin Land Legacy Report (WDNR)
- Wisconsin's Strategy for Wildlife Species of Greatest Conservation Need (WDNR)
- Great Lakes Ecoregional Plan (TNC)
- Wisconsin Important Bird Areas (WBCI)



Hine's emerald dragonfly — Ken Tapp