

ESTUARIES & COASTAL WETLANDS OF LAKE SUPERIOR

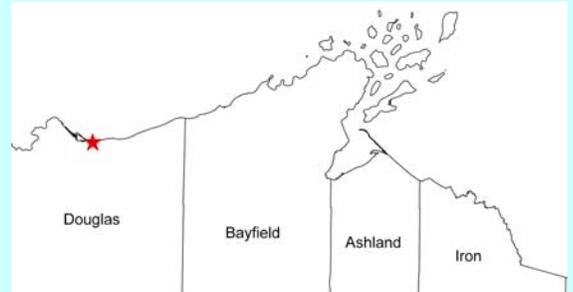
Dutchman Creek Mouth

Approximate Size: 6 acres*

Ownership: University of Wisconsin Board of Regents

Year Last Surveyed by WDNR/NHI: 2012

GLCWC Classification: Barred Drowned River Mouth



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Site Description

Dutchman Creek is an approximately nine-mile-long tributary to Lake Superior located on the eastern border of the City of Superior in Douglas County. Its principle water source is spring runoff and rain. A narrow sand barrier almost entirely bars the creek's mouth, and connects with a beach that extends west to Wisconsin Point. Wetlands are limited to narrow margins of Sedge Meadow and Alder Thicket a short distance upstream of the creek mouth. Adjoining uplands harbor young Boreal Forest.

Northern Sedge Meadow is lower quality, and is dominated by tussock sedge (*Carex stricta*) and Canada bluejoint grass (*Calamagrostis canadensis*), with lesser amounts of common bur-reed (*Sparganium eurycarpum*), marsh skullcap (*Scutellaria galericulata*), wool-grass (*Scirpus cyperinus*), woodland horsetail (*Equisetum sylvaticum*), ostrich fern (*Matteuccia struthiopteris*), hedge-nettle (*Stachys palustris*), and dark-green bulrush (*Scirpus atrovirens*). Alder Thicket margins harbor speckled alder (*Alnus incana*), red-osier dogwood (*Cornus stolonifera*), diamond willow (*Salix eriocephala*), sensitive fern (*Onoclea sensibilis*), and yellow touch-me-not (*Impatiens capensis*). East of the creek lies young Boreal Forest dominated by white birch (*Betula papyrifera*), white pine (*Pinus strobus*), balsam poplar (*Populus balsamifera*), and balsam fir (*Abies balsamea*), with most trees ranging between 8-12" diameter, creating a variable canopy cover of 30-60%. A moderate subcanopy is dominated by black ash (*Fraxinus nigra*), speckled alder, and chokecherry (*Prunus virginiana*). Dense mountain maple (*Acer spicatum*), beaked hazelnut (*Corylus cornuta*), and high-bush cranberry (*Viburnum trilobum*) occupy the shrub layer. Typical ground layer species include big-leaf aster (*Aster macrophyllus*), fringed brome (*Bromus ciliatus*), wild sarsaparilla (*Aralia nudicaulis*), meadow horsetail (*Equisetum pratense*), cow parsnip (*Heracleum lanatum*), and wild ginger (*Asarum canadense*). Downed woody debris is abundant, and very old decayed stumps are common. A small, narrow moist ravine enhances floral diversity here with the addition of twisted stalk (*Streptopus roseus*), rabbit-berry (*Shepherdia canadensis*), and northern bluebells (*Mertensia paniculata*). Although relatively young in age, this forest is of moderate quality due to conifer cover, structural diversity of the canopy, and a diverse ground layer.

*Area includes creek mouth plus riparian wetlands & adjacent uplands 0.2 mile upstream.

Threats

Non-native invasive plants observed here include garden valerian (*Valeriana officinalis*; moderate to locally abundant along streambanks, uncommon in woods), queen-of-the-meadow (*Filipendula ulmaria*; common along streambanks), and hemp-nettle (*Galeopsis tetrahit*; common in Alder Thickets). Invasive plants out-compete native plants by monopolizing light, water, and nutrients, and can have negative impacts on soils, nutrient cycling, etc. Dutchman Creek flows near the City of Superior's municipal landfill from which trash at times makes its way to the creek. A popular beach access lies on the west side of the creek's mouth at the end of Moccasin Mike Road, contributing to streambank erosion and surface water runoff. Across the Lake Superior clay plain, water quality and wetland function are known to be adversely affected by open lands (e.g., developed land, agriculture, young forest) and positively affected by older forests and conifers. Land use analysis of the watershed and associated water quality monitoring could facilitate better understanding of this site's aquatic and wetland resources.

Abbreviations and Helpful References

GLCWC - Great Lakes Coastal Wetland Classification.- http://glc.org/wetlands/pdf/wetlands-class_rev1.pdf

Lake Superior Binational Program - <http://www.epa.gov/glnpo/lakesuperior/>

WDNR Coastal Wetlands webpages - <http://dnr.wi.gov>, Keyword: "coastal wetlands"

WDNR/NHI - Wisconsin Department of Natural Resources, Natural Heritage Inventory Program.
<http://dnr.wi.gov> , Keyword: "natural heritage"

"Managing Woodlands on Lake Superior's Red Clay Plain" - WDNR publication #PUB-FR-385 2007.
<http://dnr.wi.gov>, Keyword: "bmp landowner guides"



Photos by Amy Staffen

A broad sand bar completely bars Dutchman Creek from Lake Superior (left). East of the creek lies young Boreal Forest dominated by white birch, white pine, balsam poplar, and balsam fir, with dense shrubs and abundant downed woody debris (right).

Suggested Citation

A. Staffen, K. Doyle, and R. O'Connor. 2012. Site Description for Dutchman Creek Mouth. Wisconsin Department of Natural Resources. Madison, WI. <http://dnr.wi.gov>, Keyword: "coastal wetland dutchman creek"



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