

Great Heath

Columbia, T18 MD BPP

Description:

At over 7,000 acres, the Great Heath is the largest peatland in the Downeast region and it is one of the largest multiple-unit peatlands in all of Maine. It extends on both sides of the Pleasant River as it meanders through the confluence of the Taylor and Ingersoll Branches in Columbia and T18 MD BPP. The Great Heath has been studied by several researchers, most notably Davis and Anderson in 1982. Information provided below is summarized from past studies.



Air photo of Great Heath

Huge and diverse, this multiple-unit peatland is noteworthy for its variety of peatland types. Morphologically, the peatland is composed of seven coalesced areas, each consisting of two or more raised units. Some of these raised units are visibly domed and exhibit concentric patterns. There are also scattered secondary pools that serve as breeding habitat for rare dragonflies such as the warpaint emerald (*Somatochlora incurvata*).

The high morphological and hydrologic diversity of Great Heath result in a wide variety of natural communities. Dominant vegetation types mapped by Davis and Anderson (1982) are, in descending order, 26% dwarf shrub bog, 24% crowberry-lichen bog, 11% sweetgale mixed shrub fen, 7% plateau bog sedge lawn, 6% acidic fen low sedge lawn, 6% black spruce bog woodland, 2% red maple woodland swamp 2% bog moss lawn, 1% leatherleaf bog lawn, 2% open water, and 1% upland.

As these proportions indicate, the large raised portion is intermediate between coastal plateau bogs and inland domed bogs. Plants characteristic of coastal peatlands include lichen lawns, deer-hair sedge (*Trichophorum cespitosum*) communities, abundant black crowberry (*Empetrum nigrum*) and dwarf huckleberry (*Gaylussacia dumosa* var. *bigeloviana*), as well as scattered dragon's mouth orchid

(*Arethusa bulbosa*) and baked appleberry (*Rubus chamaemorus*). Great Heath is the only location known in Maine for the globally rare Jacob's ladder (*Polemonium vanbruntiae*).

The geologic features surrounding the peatland complex are also outstanding. The west side of the peatland is bordered by an esker. The Pineo Ridge, a terminal moraine of late-glacial origin, borders the south side of the peatland and grades into a glaciomarine delta. These glacial features likely played a role in the peatland's formation.

Rare Species and Exemplary Natural Community Table for the Great Heath

Common Name	Latin Name	S-RANK	G-RANK	State Status
<i>Exemplary Natural Communities</i>				
Sedge - Heath Fen		S4	N/A	N/A
Dwarf Shrub Bog		S4	N/A	N/A
Mossy Bog Mat		S4	N/A	N/A
Maritime Huckleberry Bog		S3	N/A	N/A
Leatherleaf Bog		S4	N/A	N/A
Northern White Cedar Swamp		S4	N/A	N/A
Red Maple Swamp		S4	N/A	N/A
Sedge Meadow		S3	N/A	N/A
Domed Bog Ecosystem (historic)		S3	N/A	N/A
<i>Rare Plants</i>				
Bog bedstraw	<i>Galium labradoricum</i>	S2?	G5	SC
Jacob's ladder	<i>Polemonium vanbruntiae</i>	S1	G3	E
<i>Rare Animals</i>				
Warpaint emerald	<i>Somatochlora incurvata</i>	S3?	G4	SC

Other Habitats Mapped by MDIFW:

Waterfowl / Wading Bird Habitat

Conservation Considerations:

In general, threats to these peatlands include peat mining, cranberry harvesting, timber harvest around the forested perimeters, and development. Most of these threats have been eliminated by protection of this area by the state and The Nature Conservancy. Prior to protection by the state, the area was apparently used as a gunnery and bombing range in World War II, and there were unsuccessful past attempts to harvest peat in the southeast part of the heath. Peat mining is currently not conducted on a commercial scale in Maine, but the potential remains in the future for the small portion of the Heath not owned by the state.

Protection Status:

The Maine Bureau of Parks and Lands owns 5,681 acres of the Great Heath in T18 MD BPP. The entire ownership was designated as a state Ecological Reserve in January 2001. Parts of the Great Heath within Columbia remain in private ownership. The town of Columbia owns much of the southern part of the Heath and has a management agreement in place with The Nature Conservancy.