Great Wass Archipelago

Beals and Jonesport

Description:

The Great Wass Archipelago contains over 43 islands extending off the coast from Jonesport. This chain of islands contains the quintessential ecological characteristics of Downeast Maine. Buffeted by heavy fog and precipitation and relatively low seasonal variations in temperature, the archipelago has one of the state's finest assemblages of coastal plateau bogs, coastal Maine's two largest jack pine woodlands, as well as pristine open headlands, black spruce rocky woodlands, and maritime spruce-fir-larch forests. Moreover, the archipelago's unique habitats support a high concentration of rare sub-arctic plant and animal species and an outstanding diversity of mosses and lichens.

The largest island, Great Wass (over 1700 acres), is the approximate geographic center of the archipelago. It is connected to the mainland by a bridge from Beals to Jonesport through Beals Island. Head Harbor Island (roughly 1100 acres) and Steele Harbor Island (roughly 450 acres) are east of Great Wass. Geologically, Great Wass Island, Head Harbor Island, and Steels Harbor Island represent much of the visible portion of the Great Wass Pluton, a mass of igneous rock thrust through the earth's surface. Smaller islands ranging from one to 60 acres are scattered throughout the archipelago.

The interior of Great Wass Island supports coastal Maine's largest stand of jack pine. Based on morphological features and characteristic vegetation, the bogs on Great Wass are exceptional examples of coastal plateau bog ecosystems.

Great Wass Island

The central peatlands on Great Wass Island are a series of three major and other smaller raised peatlands hydrologically connected to one another. Characteristic plants include abundant baked appleberry (*Rubus chamaemorus)*, deer-hair sedge (*Trichophorum cespitosum*), and dragon's mouth orchid (*Arethusa bulbosa)*.

On Steele Harbor Island (also known as Steeles Harbor Island) a band of maritime spruce-fir-larch forest dominated by wind-stressed white spruce (*Picea glauca*) circumscribes the island. Further into the interior of the island, bedrock spines or ridges, running east and west, are dominated by black spruce woodlands. Black spruce occurs as scattered shrubs, small trees and larger trees where soil has accumulated. There are scattered jack pines as well. Human influence on the island has been minimal. In describing it, McLean (1989) notes that, "The soil is too thin to support a decent stand of timber -- though the island was intermittently cut for pulpwood -- and the terrain is too rocky and rugged to farm; sheep have been pastured there, but not in large numbers."

Rare Species and Exemplary Natural Community Table for the Great Wass Archipelago

Common Name	Latin Name	S-RANK	G-RANK	State Status
Exemplary Natural Communities				
Coastal Plateau Bog Ecosystem		S3	N/A	N/A
Jack Pine Woodland		S3	N/A	N/A
Maritime Slope Bog		S2	N/A	N/A
Maritime Spruce-Fir Forest		S4	N/A	N/A
Downeast Maritime Shrubland		S3	N/A	N/A
Open Headland		S4	N/A	N/A
Black Spruce Woodland		S3	N/A	N/A
Rare Plants				
Salt marsh false foxglove	*Agalinis maritima*	S3	G5	SC
Nova Scotia false foxglove	*Agalinis neoscotica*	S1	G2?	T
Marsh felwort	*Lomatogonium rotatum*	S2	G5	T
Blinks	*Montia fontana*	S2	G5	SC
Bird's-eye primrose	*Primula laurentiana*	S2	G5	SC
Mountain sandwort (*historic*)	*Minuartia groenlandica*	S3	G5	SC
Rare Animals				
Bald Eagle	*Halieetus leucocephalus*	S4B, S4N	G4	T
Crowberry blue	*Lycaeides idas empetri*	S2	G5	SC
Razorbill	*Alca torda*	S2B	G5	T

Other Habitats Mapped by MDIFW:

Tidal Waterfowl / Wading Bird Habitat
Freshwater Waterfowl / Wading Bird Habitat
Seabird Nesting Islands
Bald Eagle Essential Habitat

Conservation Considerations:

- In general, threats to coastal peatlands include peat mining, cranberry harvesting, timber harvest around the forested perimeters, public use (e.g., ATVs), and development. Most of these threats have been abated by Nature Conservancy protection of this area. One small coastal peatland remains on private land.

- Within the preserve, some public use exists, but it is largely confined to marked trails. Access to the open peatland by foot traffic, ATVs, or snowmobiles could potentially alter peatland hydrology by reducing the permeability of peat to water, and depressions may act as a barrier to lateral water flow (The Nature Conservancy 1997). Excessive or uncontrolled trail use may also cause irreparable damage to plant communities.

- Jack pine woodlands are typically fire-adapted systems that may, in the absence of fire, eventually revert to more mesic forests of black and red spruce. Thompson (1980) found that although fires influenced some of the Great Wass jack pine stands this century, "no distinct correlations could be made between stand vigor and presence of fire scars." Other jack pine stands on the island – particularly those with shallow and sparse soils – appear to be self-sustaining in the absence of fire.

Protection Status:
Approximately 2,800 acres have been protected in fee or easement – most by The Nature Conservancy (TNC), with some smaller parcel protected by the Great Auk Land Trust. Lands protected by TNC include a preserve of 1,579 acres owned in fee and partial or complete ownership on seven islands plus eight island easements. TNC also has a right-of-way on the town and private roads on Great Wass Island. The Great Auk Land Trust has protected parcels at Browney Island, the Frost Homestead, and Virgin's Breast.