

## Sheepscoot River -- Alna & Newcastle

### ***Description:***

The Sheepscoot River in Alna and Newcastle has long been recognized as an area of ecological significance. This stretch of river and associated tidal marshes support nesting bald eagles, rare mussels and salt marsh sparrows, and several species of rare plants.

From north to south, the river in this section grades from freshwater riverine to freshwater tidal marsh to brackish and salt. Dominant freshwater plants include pickerelweed (*Pontederia cordata*), arrow-head (*Sagittaria latifolia*) and bulrushes (*Schoenoplectus pungens* and *S. tabernaemontanii*) and salt-marsh species include salt-marsh bulrush (*Bolboschoenus maritimus*), cordgrass (*Spartina alterniflora*), and salt hay (*Spartina patens*). The sharpest area of transition is through 1/4 mile of shallow stream riffles, where the river grade drops a few feet. Rare plants are scattered throughout the river banks of the freshwater tidal section from Dock Road southward for over a mile.

The freshwater non-tidal portion of the River, upstream of an old dam in Alna village, supports the globally uncommon **brook floater** mussel (*Alasmidonta varicosa*). Brook floaters were found in one location here and likely occur where suitable gravel/cobble habitat exists in the River. This species is currently listed Special Concern in Maine, is very uncommon and rarely found in abundance at any site. It is also declining throughout its range, and Maine may hold some of the best remaining populations of this species anywhere in its range.



Deer Meadow Brackish Marsh

MNAP file photo, Lisa Windhausen

Further to the south the Sheepscot River is joined by Dyer Brook and the Marsh River. At the head of the Marsh River, the Deer Meadow **brackish tidal marsh** is a 150-acre wetland that supports nearly 1,000 of the rare **salt marsh false foxglove** (*Agalinis maritima*) plants in several small sub-populations. Other typical brackish marsh species here include black rush (*Juncus gerardii*), the sedge *Carex paleacea*, common arrow-grass (*Triglochin maritimum*), saltmarsh bulrush (*Bolboschoenus maritima*), common three-square (*Schoenoplectus pungens*), silverweed (*Argentina anserina*), and saltmeadow cordgrass. Smooth cordgrass lines the banks of the marsh. A few roadside homes can be seen near the forested edge of the marsh.

The lower tidal portion of the River also supports two rare bird species. Two **bald eagle** (*Haliaeetus leucocephalus*) nests have been active between the Sheepscot reversing falls and the railroad bridge. Moreover, two brackish tidal marshes (Dyer River marsh and Deer Meadow marsh) were found by MDIFW biologists to support both the **salt marsh sharp-tailed sparrow** (*Ammodramus caudacutus*) and Nelson's sharp-tailed sparrow (*Ammodramus nelsoni*). In fact, more Nelson's sharp-tailed sparrows were documented here than any other marsh in Mid-Coast Maine. Both bird species are considered uncommon in Maine -- the former may be somewhat rarer -- and both are restricted to salt and brackish marshes. Nearly 20 other bird species were detected at these tidal marshes.

**Rare Species/Natural Communities Table for the Sheepscot River Tidal Marshes:**

Common name	Latin Name	State	S-RANK	G-RANK	Habitat
<b>Exemplary Natural Communities</b>					
Brackish tidal marsh		n/a	S3	not ranked	Tidal marsh
<b>Rare Plants</b>					
Saltmarsh false foxglove	<i>Agalinis maritima</i>	SC	S2	G5	FW tidal marsh
Estuary bur-marigold	<i>Bidens hyperborea</i>	SC	S3	G4	FW tidal marsh
Parker's pipewort	<i>Eriocaulon pakeri</i>	SC	S3	G3	FW tidal marsh
Mudwort	<i>Limosella australis</i>	SC	S3	G4G5	FW tidal marsh
Threadfoot	<i>Podostemum ceratophyllum</i>	SC	S2	G5	Riverine
Spongy arrowhead	<i>Sagittaria calycina</i>	SC	S3	G5	FW tidal marsh
<b>Rare Animals</b>					
Brook floater	<i>Alasmidonta varicosa</i>	SC	S3	G3	Riverine
Salt marsh sharp-tail sparrow	<i>Ammodramus caudacutus</i>	not listed	S3B	G4	Salt marshes
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	S4B/S4N	G4	Freshwater/ estuarine

**Other Resources Mapped by MDIFW:**

Most of the tidal section of the river is mapped as a Coastal Waterbird Concentration Area. A small area below the reversing falls is mapped as a shorebird feeding area.

**Conservation Considerations:**

- In general, threats to the riparian systems include hydrologic alteration (from changes in water flow or impoundment of waterways), development of adjacent uplands and associated water quality impacts, invasive species such as purple loosestrife, and timber harvesting practices.

- Residential, commercial, and industrial development of the shoreline are all greatest where road access and town zoning are favorable.
- With regard to timber harvesting, strict adherence to Shoreland Zoning guidelines and Maine Forest Service Best Management Practices should help to maintain that the wetlands remain intact. Ideally, however, large areas of forested wetland could be set aside in forever wild condition.
- Water quality issues are also important for the threadfoot, a rare aquatic plant. Consequently, strict enforcement of shoreland zoning ordinances and Best Management Practices should help to ensure that water quality is maintained.
- Although most of the rivershore below the Dock Road Bridge is narrow and without much marsh expanse, it is undeveloped and devoid of invasive species.
- Freshwater mussels are very sensitive to contaminants and changes in habitat. Maintenance and/or improvement of water quality and habitat integrity via protection of riparian buffers is essential. Any activities that may potentially degrade water quality or alter habitat type (including substrate, flow rate, water levels) should be avoided. Likewise, because larval freshwater mussels require a specific fish host, activities that may result in changes to the fish community or prevent access by fish should be avoided. Another potential threat is introduction of exotic species, such as the zebra mussel, which can out-compete and decimate native mussel populations. The local public should be educated on how to prevent accidental introduction of this invasive species into the Sheepscot River watershed. Finally, an outreach program for freshwater mussel conservation in the Sheepscot River watershed would be extremely beneficial to the conservation of freshwater mussels.
- Appropriate conservation strategies include tree growth and open space tax treatments, conservation easements, and fee ownership.
- Bald eagles are no longer listed under the federal Endangered Species Act, and the state intends to re-classify the species in 2001. Nonetheless a "safety net" of habitats in conservation ownership and an array of sites managed by cooperative landowner agreements are key safeguards to a lasting recovery of eagles. In coastal Maine, seabirds and waterfowl are prevalent in bald eagle diets. The adjacency of suitable foraging areas to eagle nesting habitat is an important consideration.

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***Protection Status:***

There is no land in public or private conservation ownership within this area.