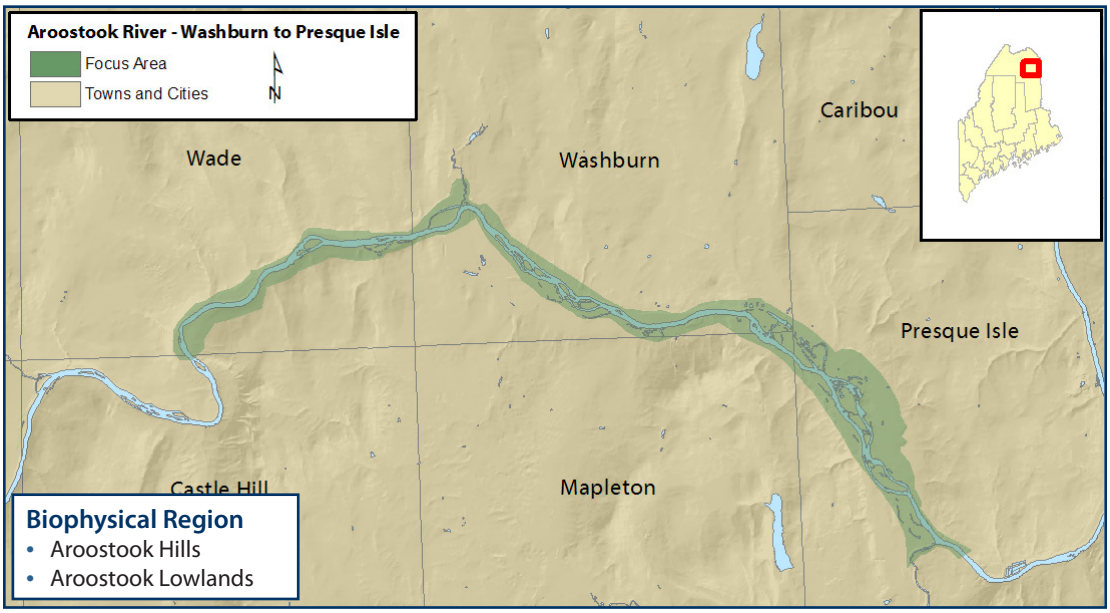
Beginning with HABITAT

Focus Areas of Statewide Ecological Significance

Aroostook River- Washburn to Presque Isle



WHY IS THIS AREA SIGNIFICANT?

The Aroostook River- Washburn to Presque Isle Focus Area includes the river, multiple islands scattered throughout its meandering channel, and the adjacent floodplains. The combination of natural communities, rare plants and rare animals in such close proximity to one another make this section of the Aroostook River an important area for focusing conservation attention.

OPPORTUNITIES FOR CONSERVATION

» Educate recreational users about the ecological and economic benefits provided by the focus area.
» Encourage best management practices for forestry, vegetation clearing, and soil disturbance activities near significant features.
» Maintain intact forested buffers along water bodies and wetlands to protect water quality and provide valuable riparian habitat for wildlife.
» Work with landowners to encourage sustainable forest management practices on remaining privately owned forest lands in and around the focus area.
» Work with willing landowners to secure permanent conservation status for unprotected significant features in the focus area.

For more conservation opportunities, visit the Beginning with Habitat Online Toolbox: www.beginningwithhabitat.org/toolbox/about_toolbox.html.

Rare Animals
Mystery Vertigo
Pygmy Snaketail
Wood Turtle
Upland Sandpiper

Rare Plants
Alpine Milk-vetch
Alpine Sweet-broom
Capillary Sedge
Dioecious Sedge
Few-flowered Spikerush
Fries' Pondweed
Garber's Sedge
Glaucous Rattlesnake Root
Hyssop-leaved Fleabane
Longleaf Dropseed
Mistassini Primrose
New England Violet
Pale Green Orchis
Shining Ladies'-tresses
Soft-leaf Muhly
Wild Ginger
Wild Leek

Rare and Exemplary Natural Communities
Circumneutral Pond
Rivershore Outcrop
Riverside Seep

Significant Wildlife Habitats
Inland Wading Bird and Waterfowl Habitat

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Aroostook River, Gene Cyr

FOCUS AREA OVERVIEW

The Aroostook River—Washburn to Presque Isle Focus Area follows the Aroostook River from the Castle Hill/Wade town boundary through Wade to Washburn and ends in Presque Isle. The focus area includes the river, multiple islands scattered throughout its meandering channel, and adjacent floodplains. Local calcareous bedrock creates enriched conditions in this focus area that support an unusual array of rare natural communities and plants, and the backwaters, pools and water quality of the river support a diversity of rare aquatic features.

In the upstream sections of the focus area, populations of a wide variety of rare plant species are scattered along the calcareous river banks. Upstream, the Wade ledges site near the Wade-Washburn border is quite rich in rare plant species and hosts **alpine milk-vetch** *(Astragalus alpinus)*, **dioecious sedge** *(Carex sterilis)*, **few-flowered spikerush** *(Eleocharis quinqueflora)*, **soft-leaved muhly** *(Muhlenbergia richardsonis)*, **glaucous rattlesnake root** *(Prenanthes racemosa)*, **bird's eye primrose** *(Primula mistassinica)*, and **tall dropseed** *(Sporobolus asper)*. The majority of the known locations of these plant species have been found on land that is so far not formally managed as public or private conservation land in Maine; therefore concentrations such as what is found along the Aroostook River represent a significant opportunity to protect or manage for several species that are otherwise not well represented through other conservation efforts. Furthermore, the Aroostook River shores mark the only known location in the state for tall dropseed, a grass that grows south into Alabama and west into Washington state.

Public Access Opportunities

- Aroostook River Access, MDIFW
- Aroostook Valley Rail Trail, MBPL
- Aroostook River Access, MDOC

The Washburn ledges hosts several rare species including **capillary sedge** *(Carex capillaris)*, **Garber's sedge** *(Carex garberi)*, **hyssop-leaved fleabane** *(Erigeron hyssopifolius)*, **alpine sweet-broom** *(Hedysarum alpinum)*, and bird's eye primrose.

The section of the Aroostook River within this focus area includes numerous islands that are seasonally flooded. On

some of these there are bogans (narrow stretches of backwater) and sloughs (marshy pools) of varying hydroperiods that support aquatic plant communities which thrive in enriched conditions. Two of these locations have been documented as circumneutral-alkaline water macrophyte suite communities. One, at the mouth of Pettingill Brook, is the Pettingill Brook Bogan and the other, on Pond Island, is an assortment of ponds with unusual berms and evidence of beaver activity. The state endangered **Fries' pondweed** *(Potamogeton friesii)* has also been documented in this section of the river.

The majority of the Aroostook River- Washburn to Presque Isle Focus Area downstream of Washburn supports **Inland Waterfowl and Wading Bird Habitat** and the bogans and sloughs provide excellent foraging habitat for waterfowl.

The focus area also hosts at least two rare animal species: **wood turtles** *(Glyptemys insculpta)* and **pygmy snaketails** *(Ophiogomphus howei)*, a small globally rare dragonfly. Wood turtles, a primarily northeastern species listed as a species of special concern in Maine, are declining throughout their range. Maine, however, likely hosts some of the largest and most viable remaining populations in the U.S. The turtles require well-oxygenated streams and rivers for over-wintering, and sandy, gravelly banks for nesting sites, two of the prominent features that are included in the Aroostook River- Washburn to Presque Isle Focus Area.

The pygmy snaketail has been documented in two locations within the focus area. This species spends most of its life in rivers and depends on clean, free-flowing rivers and streams with forested riparian areas and sand and gravel bottoms. This species is one of the least tolerant groups of dragonflies to changes in water quality. Increased sedimentation, nonpoint sources of pollution (e.g., runoff from roads and storm sewers, agricultural fertilizers, pesticides), dams and intensive watershed development contribute to their decline. The pygmy snaketail has declined and disappeared from many rivers in the Northeast. Surveys have shown that Maine, with its relatively clean, free-flowing rivers in forested watersheds, has some of the best populations remaining in the Northeast. As such, Maine will play a major role in the future conservation of this species.

This section of the Aroostook River contains a wild population of **Eastern brook trout** *(Salvelinus fontinalis)* and supports a popular sport fishery. Significant coldwater tributaries, including Gardner Brook and Salmon Brook, help sustain this trout population. Other smaller tributaries are an important source of cool water in the warm summer months even though they may not sustain notable trout populations.

An active **Atlantic salmon** *(Salmo salar)* restoration effort is on-going in the Aroostook River. The Presque Isle Stream and Salmon Brook each have dams near the confluence with the Aroostook River that are fitted with fishways to facilitate Atlantic salmon and brook trout passage.

Ecological Services of the Focus Area

- Exports nutrients.
- Provides ecological connectivity and habitat for area-sensitive wildlife species.
- Supports regional biodiversity by providing habitat for rare plants, animals, and natural communities.

Economic Contributions of the Focus Area

- Provides recreational boating and fishing.
- Conveys floodwaters.
- Provides a scenic viewshed.
- Contributes to recreational value of the area by protecting water quality, fisheries, and wildlife habitat.
- Attracts tourism for wildlife observation, paddling, hunting, and angling.

The surrounding upland areas beyond the immediate riparian sections of the river have been somewhat altered from their natural conditions especially for agricultural fields and for residential/business development in the town of Washburn.

CONSERVATION CONSIDERATIONS

» The integrity of wetlands and the processes and life forms they support, including rare plants and animals, are dependent on the maintenance of the current hydrology and water quality of the site. Intensive timber harvesting, vegetation clearing, soil disturbance, new roads, and development on buffering uplands can result in greater runoff, sedimentation, and other non-point sources of pollution that can degrade the high quality natural systems that occur here.

» Forested buffers along the Aroostook River serve to decrease erosion and nutrient runoff and help prevent the spread of exotic invasive plants. Unchecked erosion can cause formerly stable banks to slump and completely wash away under heavy runoff conditions. Maintaining or restoring a healthy buffer of native trees is vital to help protect the integrity of riparian ecosystems.

» Rivershore communities, because of the periodic natural hydrological disturbances to which they are subjected, are particularly susceptible to colonization by invasive plant species. Local groups with an interest in the protection of this focus area should be made aware of the potential threat of invasive plants in these communities and keep an eye out for them before they become well established.

» Improperly sized culverts and other stream crossing struc-

tures can impede movement of fish and aquatic invertebrates effectively fragmenting local aquatic ecosystems and ultimately leading to local extirpation of some species. Future management should maintain or restore the sites natural hydrology.

» This area includes Significant Wildlife Habitat for inland wading birds and waterfowl. Land managers should follow best management practices with respect to forestry activities in and around wetlands, shoreland areas, and Significant Wildlife Habitat. Vegetation removal, soil disturbance and construction activities may require a permit under the Natural Resources Protection Act. Contact the Maine Department of Inland Fisheries and Wildlife for more information.

Aroostook River, Gene Cyr

For more information about Focus Areas of Statewide Ecological Significance, including a list of Focus Areas and an explanation of selection criteria, visit **www.beginningwithhabitat.org**

RARE SPECIES AND EXEMPLARY NATURAL COMMUNITIES OF THE FOCUS AREA

	Common Name	Scientific Name	State Status*	State Rarity Rank	Global Rarity Rank
Animals	Mystery Vertigo	*Vertigo paradoxa*	SC	SNR	G3G4Q
	Pygmy Snaketail	*Ophiogomphus howei*	SC	S2S3	G3
	Wood Turtle	*Glyptemys insculpta*	SC	S4	G4
	Upland Sandpiper	*Bartramia longicauda*	T	S3B	G5
Plants	Alpine Milk-vetch	*Astragalus alpinus var. brunetianus*	SC	S3	G5T3
	Alpine Sweet-broom	*Hedysarum alpinum var. americanum*	SC	S3	G5T5?
	Capillary Sedge	*Carex capillaris*	SC	S2	G5
	Dioecious Sedge	*Carex sterilis*	SC	S3	G4
	Few-flowered Spikerush	*Eleocharis quinqueflora*	SC	S2	G5
	Fries' Pondweed	*Potamogeton friesii*	E	S1	G4
	Garber's Sedge	*Carex garberi*	SC	S2	G5
	Glaucous Rattlesnake Root	*Prenanthes racemosa*	SC	S3	G5
	Hyssop-leaved Fleabane	*Erigeron hyssopifolius*	SC	S2	G5
	Longleaf Dropseed	*Sporobolus asper*	E	S1	G5
	Mistassini Primrose	*Primula mistassinica*	SC	S3	G5
	New England Violet	*Viola novae-angliae*	SC	S2	G4Q
	Pale Green Orchis	*Platanthera flava var. herbiola*	SC	S2	G4T4Q
	Shining Ladies'-tresses	*Spiranthes lucida*	T	S1	G5
	Soft-leaf Muhly	*Muhlenbergia richardsonis*	SC	S3	G5
	Wild Ginger	*Asarum canadense*	T	S1S2	G5
	Wild Leek	*Allium tricoccum*	SC	S3	G5
Natural Communities	Circumneutral Pond	Circumneutral-alkaline water macrophyte suite		S2	GNR
	Rivershore Outcrop	Bluebell - balsam ragwort shoreline outcrop		S3	G3
	Riverside Seep	Circumneutral riverside seep		S2	G2

State Status*

- E — Endangered: Rare and in danger of being lost from the state in the foreseeable future, or federally listed as Endangered.
- T — Threatened: Rare and, with further decline, could become endangered; or federally listed as Threatened.
- SC — Special Concern: Rare in Maine, based on available information, but not sufficiently rare to be Threatened or Endangered.

**State status rankings are not assigned to natural communities.*

State Rarity Rank

- S1 — Critically imperiled in Maine because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres).
- S2 — Imperiled in Maine because of rarity (6–20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- S3 — Rare in Maine (on the order of 20–100 occurrences).
- S4 — Apparently secure in Maine.
- S5 — Demonstrably secure in Maine.

Global Rarity Rank

- G1 — Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation.
- G2 — Globally imperiled because of rarity (6–20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3 — Globally rare (on the order of 20–100 occurrences).
- G4 — Apparently secure globally.
- G5 — Demonstrably secure globally.