

*You may keep this brochure  
or return it to the box for others to use.*

# LaPlatte River Marsh Natural Area

## PADDLE GUIDE



### Welcome to the LaPlatte River Marsh!

This guide was created for curious paddlers interested in the ecology of the LaPlatte River ecosystem. This guide interprets the features of the marsh that might be seen from a small boat. The LaPlatte River Marsh Natural Area was established in 1977 by The Nature Conservancy to preserve the diverse ecological communities and species found here. As you learn more about the way this wetland system works, we hope you will be inspired to help protect this site and others like it.

The LaPlatte River Marsh Natural Area is located at the mouth of the LaPlatte River in Shelburne. Extending sixteen miles from Lake Iroquois to Lake Champlain, the LaPlatte River drains 34,137 acres of the Champlain lowlands. The marsh itself covers 150 acres of periodically flooded land along the final mile and a half of the LaPlatte River and McCabes Brook. The geologic history, the dynamics of the river, and the diverse plant and animal communities that inhabit this site are all important to understanding the LaPlatte River ecosystem.

The  
Nature  
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*Saving the Last Great Places*

**SHELBURNE, VERMONT**

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River Otter



Muskrat



Leopard Frog



Painted Turtle

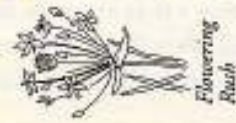
### Beavers

Humans are the only animals on this planet who can have more lasting effects on a landscape than beavers. Beavers dam streams and rivers in order to protect themselves from predators who can't swim

predators who can't swim and to provide themselves with food. In the summer, beavers eat aquatic plants such as waterlilies and cattails that grow in ponds or very slow-moving water. In winter, beavers eat the bark off the branches they used to build their dams and lodges.



There are several examples of beaver activity in the LaPlatte River Marsh Natural Area. Along the main channel of the LaPlatte, if you look very closely, you will see stumps that have been gnawed off by beavers, as well as remnants of an old beaver lodge. The flooded silver maple forest along McCabes Brook resulted from beaver activity over the past 25 years.



Flowering Rush

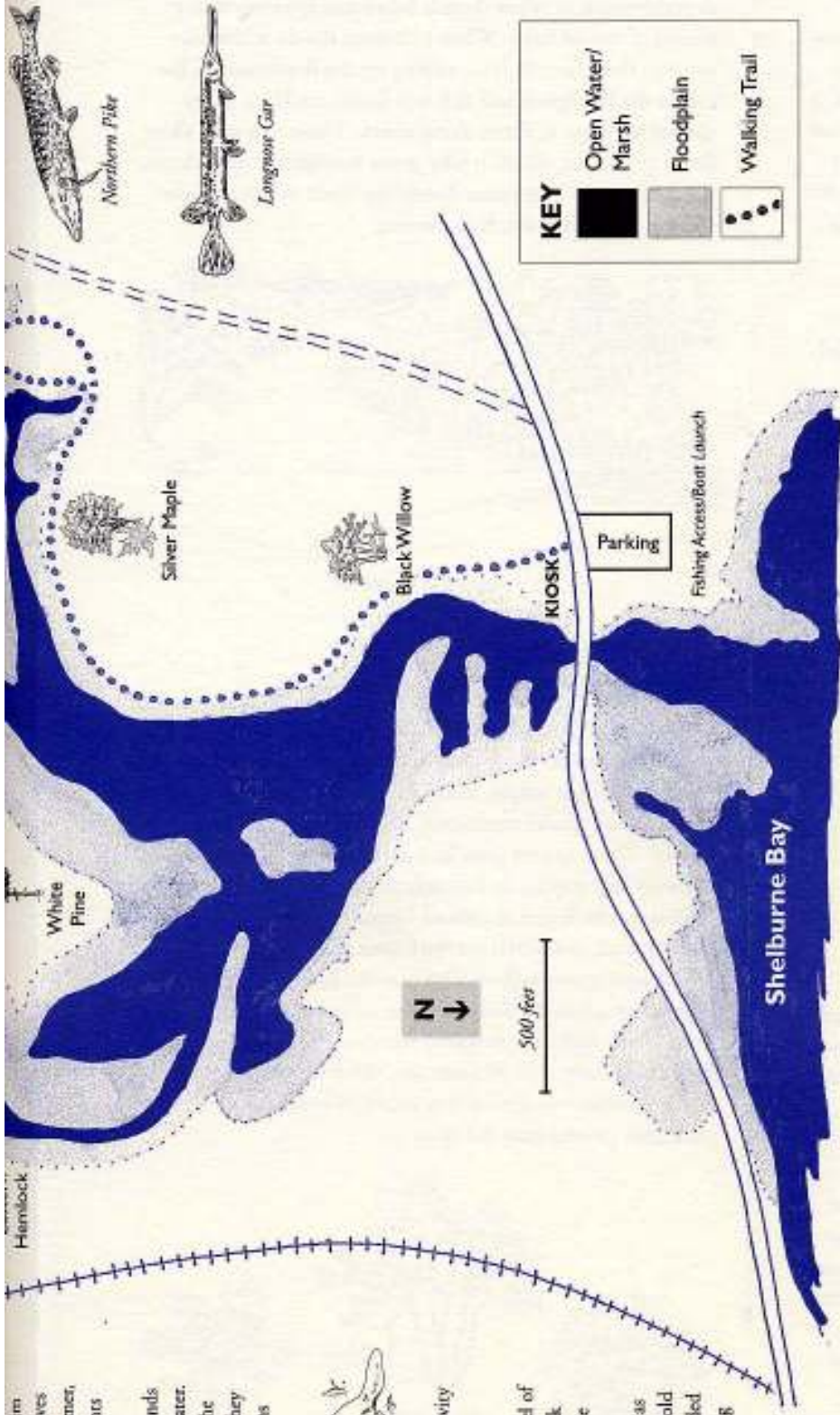
### Invasive Exotic Species

Exotic species are plants or animals that have been brought to a certain ecosystem by humans, either deliberately or by mistake. These species thrive in their new ecosystem because their natural predators are absent. Some exotic species are more invasive than others and can eventually crowd out native plants and animals. Two types of invasive plants in the LaPlatte River Marsh are purple loosestrife and flowering rush.

### Preserve Guidelines

Please keep these things in mind as you enjoy these waters:

- Use of this preserve is restricted to passive recreational activities such as hiking, paddling, bird watching, photography, etc.
- Removal of any plants, animals, rocks, or other artifacts is prohibited.
- No camping is allowed here. Build no fires and leave no litter.
- Please keep group sizes small and leave pets at home.



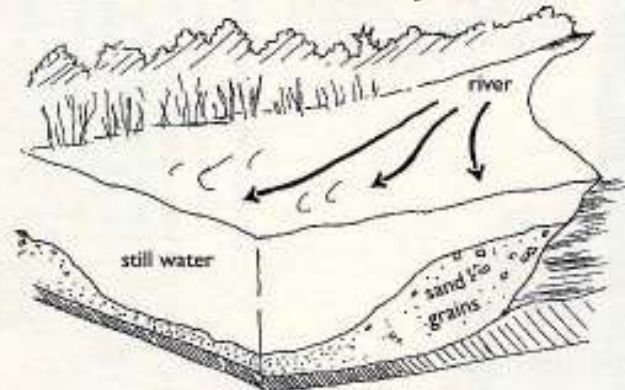
### A Few Words About Paddling Here

Rivers are among the most dynamic and changing components of the landscape. Due to low water levels and downed trees in the channel, paddling in the LaPlatte River Marsh Natural Area may be difficult during certain seasons of the year. In order to progress up the river, you may need to carry your canoe or kayak over snags or log jams. On the other hand, during the spring months, high water levels will allow you to paddle freely through most of the floodplain area.

## Glacial Impacts

Between three million and 10,000 years ago, Vermont was covered by a series of glaciers that profoundly changed the shape of the landscape. By the time the last glacier melted, it had scoured out the Lake Champlain Basin. This depression quickly filled with glacial melt-water, forming a lake much larger and deeper than the present Lake Champlain. The size and shape of the lake have continued to change, eventually becoming the lake we recognize today.

In the LaPlatte River Marsh Natural Area, bedrock is primarily covered by two types of sediments that may be as deep as 120 feet. The first type is mainly clay, which settled out of the calm water of the post-glacial lake. The second type is sand, which has accumulated at the mouth of the river. As water velocity slows, large sand grains are deposited, forming a sandy river delta. The delta that was originally deposited several thousand years ago is now exposed, and serves as the substrate for much of the upland forest.



*River Delta*

## How a River Shapes a Landscape

Water is one of the most powerful forces shaping the earth's surface. Water can erode rocks, carry sediment, and destroy human structures. It also influences what types of plants and animals live in a certain area. Because rivers are moving bodies of water, they have an especially important role in shaping the landscape.

All rivers and streams carry some sediment suspended in their waters. The faster and stronger the current, the larger the grains of sediment a channel can carry. A small mountain stream raging down a steep slope can carry cobblestones the size of a person's fist. On the other hand, a slow-moving river, such as the LaPlatte, can only carry small particles of sand, silt, and clay. As water flows past the banks of any channel, it slowly erodes the bank. Streams that carry a great deal of sediment erode their banks more quickly than rivers carrying small amounts of sediment.

A floodplain is the land bordering a river or stream that is periodically flooded. Streams and rivers flood for many reasons: when snow melts in the spring, following a brief

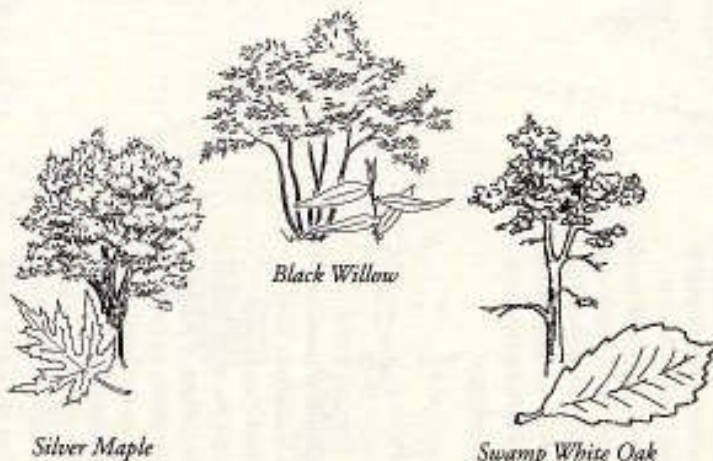
thunderstorm, or when there is heavy precipitation over a period of several days. When a channel floods, it deposits some of the sediment it is carrying on the floodplain. This makes the floodplain soil rich and fertile, enabling many species of plants to thrive along rivers. These rich soils allow farms to prosper, which is why many floodplains were cleared for agriculture. The intact floodplain forest of the LaPlatte River is a remnant worth preserving.



*Riverbank Vegetation*

## Common Trees Seen from the LaPlatte River

As you paddle through the LaPlatte River Marsh, you will notice that certain kinds of trees dominate the forests along the banks. Silver maple, black willow, swamp white oak, and green ash are species commonly found in northern floodplain forests. These species grow best in areas that are flooded annually and stay moist throughout the year. White pine is a typical species found in upland forests throughout Vermont, and is found extensively on the higher ground of the preserve. White pine grows well on land that has been disturbed. The large white pines visible from these waterways were probably some of the first trees to spring up when the farms in this area were abandoned over 50 years ago. Eastern hemlock is another coniferous species that grows in sandy deltaic deposits on higher ground near the river.



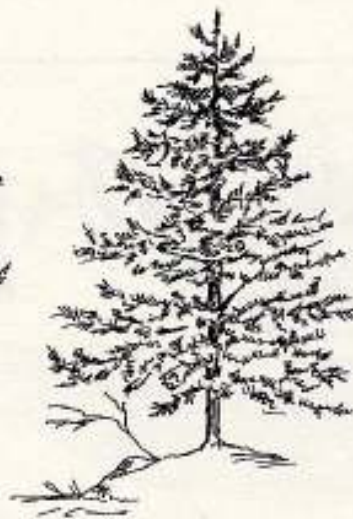
*Silver Maple*

*Black Willow*

*Swamp White Oak*



*White Pine*



*Eastern Hemlock*

### Marsh Plants

Marsh vegetation covers approximately 15 acres of the LaPlatte River Marsh Natural Area. Common plants native to this marsh include cattail, burreed, common arrowhead, and pickerelweed.



*Cattail*



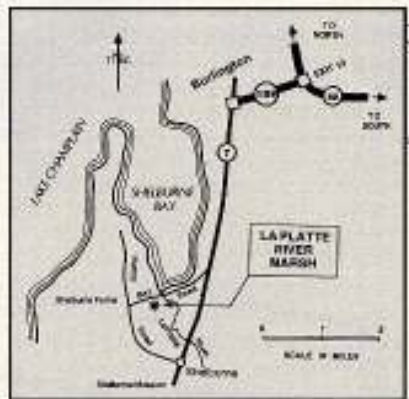
*Burreed*



*Common Arrowhead*



*Pickerelweed*



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Printed with soy-based inks on recycled paper.

Special thanks to the Lintilhac Foundation for generously supporting this project.