

Newsletter Fall 2017



Big Boat, Big Fish, Big Fun

In many ways, the Lamprey River is unique among the rivers that flow into Great Bay. It is Wild and Scenic, is longer, has a bigger watershed area, contributes more fresh water, and currently has the best river herring runs among the Great Bay rivers. But it has a great deal in common with the other rivers, too. Like the other rivers, it has a long history of dams and mills, anadromous fish (such as river herring), local industry and local solutions to transportation (such as gundalows, schooners, and railways), and losses due to fire.

This past summer, the City of Dover completed work on the Henry Law Park Adventure Playground. The downtown park is located on the Cocheco River, just below the Children's Museum of New Hampshire and across from former textile mills. The park was planned with extensive community input and received significant support in the form of grants and donations. In addition to "natural park" play features such as swings, rope webs, spray pad, musical instruments, and old fashioned hand water pumps, the playground is also home to the retired gundalow *Captain Adams*, a three story simulated fire tower, and an eight-foot long, kid-proof granite alewife. Many play features are handicap accessible. In a word, it's terrific! Watchful adults are welcome to sit at the picnic tables or benches. Free-spirited kids-at-heart can join the fun.



Scenes from Henry Law Park Adventure Playground

Photos by S. Petersen

Man is most nearly himself when he achieves the seriousness of a child at play." - Herodotus, Greek historian

Lamprey River Eco-paddle August 26, 2017

What a day it was! Great weather, good company, knowledgeable and enthusiastic presenters, and an abundance of wildlife marked the first saltwater eco-paddle sponsored by the Lamprey Rivers Advisory Committee.

Participants met with a researcher from Jackson Lab and learned about efforts to map and restore eelgrass in the Great Bay estuary. Next, they saw the Macallen Dam fish ladder and learned about the robust river herring run. On the way out to Great Bay, a visit to a private dock provided paddlers with the opportunity to learn about oyster restoration, including seeing newly settled oyster spat. Toward the mouth of the river, water quality was the hot topic. Participants learned what towns are doing to improve the water and what individuals can do to keep the river and bay clean. Along the way, twice a bald eagle tried to snatch a fish away from an osprey, a flock of wild turkeys flew over, great blue herons were fishing, horseshoe crab molts were in abundance, and a harbor seal popped up to watch the group paddle back to Schanda Park.



Photo by Peter Sawtell



Photo by RH Lord



Photo by Peter Sawtell

Thanks go to The Nature Conservancy, Jackson Lab, and Seven Rivers Paddling for their expertise and support.

Saltwater Paddle Fun Facts



Horseshoe crabs are not really crabs; they are more closely related to spiders. When they shed, they emerge from the front of their shells.

Estuaries are semi-enclosed areas where fresh water from land meets salt water from the ocean.

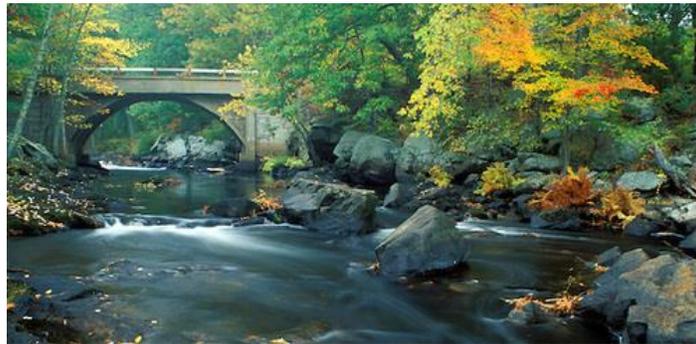
River Herring and sea lampreys are anadromous fish: the eggs are laid in fresh water, but the adults live at sea.



Oysters begin life as plankton and then settle onto other oyster shells. They are extremely helpful for keeping water clean.

What's in a View?

The National Park Service is the guardian of some of the country's most iconic natural, historic, and cultural places. One of the key qualities that make people visit and remember these places is "the view." Defining what makes a particular view memorable and assessing the importance of the view are complicated processes and often very subjective. Predicting the effects of changing a view can be just as complicated.



Packers Falls, Lamprey River, Durham Photo by Ecophotography

Visual Resource Assessment is a systematic process that helps to standardize the value and importance of a view. At the July workshop of Partnership Wild and Scenic Rivers, river representatives and National Park Service personnel dove into this process to see how it might be adapted from strictly terrestrial views to river systems. The guided process of objectively evaluating lines, colors, textures, complexity, and many other factors resulted in remarkably similar scores from a diverse group of about forty people. Dissecting a view in this way can feel very awkward, but the resulting objectivity might well be needed if a favorite view is altered by cell towers, land clearing, energy projects, or other forms of development.

Special places in or near national parks, monuments, or Wild and Scenic Rivers often have multiple demands placed on or near them. Development must be considered carefully to maintain what is most valuable and to minimize negative consequences. In many cases, understanding exactly what makes a view spectacular or important can be part of a river's resource inventory and can inform wise development that protects the view while meeting the needs of the proposed development. Visual Resource Assessment is an emerging tool that helps to quantify what has traditionally been difficult to define: What's in a view?

New Hampshire Rivers Management and Protection Program (NHRMPP)



A 23 mile segment of the Lamprey River is a National Wild and Scenic River, a great accomplishment which we hope you know by now. But did you know the entire river and its five major tributaries are also designated by the State of New Hampshire? What does this mean in real terms?

The NHRMPP was enacted by the New Hampshire General Court in 1988 (RSA 483) to protect “designated” rivers for their outstanding natural and cultural resources. The program is administered by the New Hampshire Department of Environmental Services.

Designation is initiated when individuals or an organization develop a “river nomination report” that outlines the river’s special qualities and documents support by local residents and municipalities. The report is given to the New Hampshire Department of Environmental Services for review. It then goes to the General Court for consideration. If the legislature and governor agree, the river is “designated” and RSA 483 is amended to add the new river for protection. The Lamprey in Lee and Durham was one of the first river segments in the program.

When a river is designated, a volunteer local river advisory committee is created. One of the committee’s first jobs is to create a river management plan that describes how the river’s qualities will be protected for the future. (To view the 2013 management plan for the Lamprey, please visit <http://www.lampreyriver.org/about-us-2013-management-plan-draft>.) The other state-mandated jobs are to submit yearly reports to NHDES and comment on development or redevelopment projects proposed within a quarter mile of either side of the river. Most river advisory committees go well beyond the minimum requirements and contribute significantly to public appreciation of the rivers through recreation, outreach, water quality testing, and research.

The Great Bay region is fortunate to have concerned citizens who have worked hard to get their rivers designated. In addition to the Lamprey, the NHRMPP has recognized the Exeter/Squamscot, Oyster, Cocheco, and Isinglass rivers. Together we are protecting our rivers for today and tomorrow.

Indian Pipes



Photo by S. Petersen

Most people who frequent our woodlands have encountered waxy white or pinkish Indian pipes, also known as corpse plant or ghost flower. Many think that they are a type of mushroom, but Indian pipes are actually perennial plants. Unlike most plants, they cannot make their own food. They lack chlorophyll, the pigment that enables photosynthesis, and they have greatly reduced leaf bracts along the stem. While most plants are classified as ecological producers, Indian pipes are classified as ecological decomposers.

Indian pipes have a network of roots covered by mycorrhizal fungi. In most plants, this relationship is mutually beneficial: the fungi benefit by absorbing energy compounds from the plant and the plant benefits from additional moisture and nutrient retention near

the roots. The relationship between Indian pipes and the root fungi is not mutually beneficial; Indian pipes are actually parasitic on the fungi. The fungi in this case provide a pathway for the Indian pipes to absorb energy produced by nearby trees without being directly parasitic on the trees. Indian pipes are members of the plant family *Ericaceae*, which also includes blueberries, rhododendrons, and azaleas. All plants in this group supplement their own food-making abilities with energy made by other nearby plants. Indian pipes and their closest cousins, pinesaps, represent the logical extremes of this strategy.

Indian pipes almost always have a single flower on each stem, thus the Latin name, *Monotropa uniflora*. In the photo above, the flower that faces down has not yet been pollinated by a tiny bee. The upright flowers have been pollinated and will turn into seed capsules. After the tiny seeds are dispersed by the wind, the whole plant will turn black and wither.

Because they do not rely on sunlight for energy, Indian pipes often thrive in forested sites that are too shady for plants that must make their own food. The presence of Indian pipes is a good sign that the forest is mature and the soil is ecologically complex. These ghost flowers are a welcome spirit in our woods.

Events Fall / Early Winter 2017

- Sept. 9, Raymond Triathlon: bike, run, paddle. For info and to register, go to <https://www.friendsofraymondrecreation.org/om-a-can-can-oe-triathlon>
- Sept. 9, Lee Fair. For info, go to http://www.leenh.org/Pages/LeeNH_News/0258EB58-000F8513
- Sept. 12, Lamprey Rivers Advisory Committee meeting, presentation on oyster restoration. Lee Safety Complex, 7:00 P.M.
- Oct. 14, 9:00 - noon, Lamprey River litter clean-up, various sites. Contact volunteer@lrwa-nh.org
- Oct. 27, Lamprey River Watershed Association Annual Meeting. Lee Grange. Contact volunteer@lrwa-nh.org
- Dec. 8, State of the Estuaries Conference, Portsmouth. Visit <http://prepestuaries.org/2018-state-of-our-estuaries/>

Did you know...?

- With a length of 49 miles, the main stem of the Lamprey River is longer than the state of Rhode Island.
- A site along the Lamprey River in Lee is home to some of the oldest human artifacts in New Hampshire; they date back more than 8,000 years.
- More than 100 mills formerly operated along the Lamprey River.