Patrick Marsh

A Human Nature

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American Environmental History
Spring 1998

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Sun Prairie, Wisconsin claims just one body of water as its own. Patrick Marsh lies about a mile out of town, on the south side of U.S. 151. A modest 160 acres, and just 7 feet deep, the wetland straddles the distinction between marsh and lake. Gravel trails follow the east and west shores, winding through surrounding grasslands and mature, open oak groves. A frontage road along the highway borders the marsh to the north; residential lots lie to the south. Now a wetland restoration project jointly sponsored by the Department of Natural Resources and the Department of Transportation, Patrick Marsh has also been called Patrick Lake, Brazee Lake and more generically "the old lake" since Europeans first arrived. The changing names for this wetland betoken the changing values and actions that people have visited upon its waters.

When William Patrick arrived at a small lake in 1841, he found it surrounded by oak, hickory, and grass "high as men's shoulders" (Hayden, 1). Winnebago Indians had a temporary campsite on the south side, and three of their many trails crossed on the west. For these people, the water was a gathering place, a source of refreshment along the trail, and one of several ecosystems on which they intimately depended for nourishment. Natives sought the spring water and wild game provided by the lake, but they also drew on other local habitats for sustenance. The Winnebago, like many Native Americans, used fire to maintain habitats for fruitful hunting. Indian fires would clear the underbrush, allowing grasses to grow up in the fertilized soil, while the thick bark of oak and hickory trees allowed them to survive. The oak, hickory, and grasses that Patrick encountered thus constituted a very human landscape.

At first glance, little evidence today remains of Winnebago presence at Patrick Marsh. Plows have erased their trails and homes sit over their campsites. But the old oak

groves standing on either side could be the result of their changes to the landscape. The groves are quite small, perhaps 30 or 40 trees each, and quite open. No other tree species stand among the oaks, which have filled the sky with large, low branches and broad crowns. While few of these trees are old enough to have lived 200 years ago with the Winnebago, the groves are likely remnants of the oak prairie landscape maintained by their fires. Native American presence is still evident in open spaces between these majestic trees and the tall grasses underneath.

William Patrick settled on the west side of the lake that he named after himself. He and his family cleared much of their land for grain fields, probably by girdling or with an ax. Living in a log cabin, they grew wheat, tended an orchard, and raised sheep. Another farmer named Brazee claimed land east of the lake, starting a controversy by trying to change the lake's name to his own. These or later farmers probably eventually removed tree stumps for easier plowing. Through time, residents used the lake itself for recreational hunting and trapping, boating (the Patricks found an Indian dugout on the lake), and, later, fishing. Spring water drew thirsty travelers from the early roads near the lake. But water also provided ice for use in iceboxes, as the European agricultural lifestyle came to require prolonged food storage much more than the Native way of life.

No farm buildings remain within the boundaries of Patrick Marsh. The evidence of agriculture, however, is easily visible. The large rectangular grasslands were certainly fields of wheat and probably corn within the last 150 years. Farmers likely passed over or grazed livestock on the land on which the oaks still grow; it is much more uneven ground, and would prove difficult to plow. Within these groves are large piles of round rocks, overgrown with vines and moss. These are probably the collections of stones

uncovered by plows, the unwanted gifts of receding glaciers. A few solitary, weathered fence posts still stand, survivors from a landscape much differently ordered than today's. The species of vegetation also reflect European agricultural influence. European immigrants brought with them a "portmanteau biota" capable of reproducing their familiar agricultural ecosystem (as argued in Crosby's Ecological Imperialism). While current restoration project volunteers have attempted to remove alien species, stubbornly persistent species such as honeysuckle and buckthorn are reminders of the profound ecological changes ushered in by arriving settlers.

Technology and economics transformed agriculture in the twentieth century, changing again the interactions between humans and the land. Chemical fertilizers and pesticides applied to fields surely affected both the land and the lake. A more drastic and visible change, however, occurred early in the 1960's. The farmers on both sides of the lake successfully appealed for the land to be rezoned, and, despite several lawsuits, installed drainage pumps and began to farm the lake bottom. Although one is usually ill advised to improve or farm a wetland, these farmers had clear economic incentive to try; they were taxed for the land under the lake, but saw no return from the soil. Economic factors dictated that land beneath the water was more important for these farmers than the lake itself.

Fluctuating water levels were endemic to Brazee Lake, as it was then called. The water level had become very low several times; the lake had even dried up completely in the previous century (an illegal homesteader successfully planted crops on the lake bottom in 1875). This erratic water level can be attributed to the springs that feed the lake. These springs are connected to the Koshkonong watershed, whose fluctuations

affect lake water levels, sometimes with striking ecological implications. Fish did not inhabit the lake until 1922, when the water rose high enough that they "backed up into the old lake" from Koshkonong creek (Hayden, p.6). Nevertheless, the long-term drainage of the lake certainly had profound and devastating effects on its ecosystem. Monoculture fields replaced a diverse and dynamic wetland ecosystem. The lake was gone.

I often walk in Patrick Marsh to try to detach myself from the hurry and business of a typical modern lifestyle. I usually become annoyed by the endless hiss of tires traveling on U.S. 151 just north of the lake, and find myself trying to wish the road away. It is fortunate that such thinking is only wishful; ironically, the highway is largely responsible for Patrick Marsh as it exists today.

Early in the 1980's, Wisconsin's Department of Transportation determined the need for a four-lane highway on U.S. 151 between Sun Prairie and Columbus. This meant acquiring sufficient land for the road, including the lake bed, which had been abandoned as a field and partially flooded. Environmental regulations for road construction were crucially important to the full restoration of the wetland. Specifically, the policy of mitigation required the Department of Transportation to replace or re-create an equal acreage of any wetland that it destroyed during road construction. In this case, the Wisconsin Department of Natural Resources and the Department of Transportation worked out an unprecedented solution: although the Department of Transportation would need just 12 acres for the highway, the Department of Natural Resources would restore the entire marsh. The Department of Transportation could use the remaining acreage as a

balance against future wetland destruction. The restored marsh would thus serve as a wetland "bank" for the Department of Transportation.

Increasing local and national populations, their expanding infrastructure needs for transporting products by truck, and American lifestyles increasingly dependent on travel by automobile necessitated the expansion to a four-lane highway near the marsh. These causes, which have historically contributed to the destruction of many of Wisconsin's wetlands, ironically brought about the restoration of Patrick Marsh, beginning in 1992. The highway itself, however, affects the ecology of the marsh. The air and noise pollution of cars change the physical environment of the marsh. The highway and its fences create a barrier that prevents many species from visiting the wetland. The ecosystem of the marsh thus reflects the circumstances of its human creation.

The Department of Natural Resources designed the restoration project to return Patrick Marsh as closely as possible to the state in which William Patrick found it when he arrived. They removed the water pumps that evacuated the marsh, and the lake has gradually filled to its current depth of 7 feet, the deepest on record. The recent refill is evident in the landscape. Hundreds of tree stumps emerge just above the waterline in an area off the west edge of the marsh, giving the false appearance of pilings for a long dock. The thickness of the stumps reveals that the area was dry land for a significant period of time in the past.

Like any ecological restoration, restoring Patrick Marsh is a great challenge that requires ecological expertise, time-intensive manual labor, community cooperation, and inevitably, compromise. Removing alien species from Patrick Marsh can be difficult. Buckthorn is a good example of a stubborn invading species that is a struggle to

permanently remove. Each summer, volunteers with garden gloves and clippers wage war on invading species. Restoration of a natural habitat clearly requires constant human intervention.

"New" indigenous species constitute another problematic issue. The fish that currently inhabit the lake did not arrive until 1922. There is some evidence that a dam built in Prairie du Sac at that time caused the unusually high water levels leading to the introduction of the fish. Now a host of species that depends on fish has inhabited the marsh. A decision to try to remove this component of the ecosystem would prove a difficult if not impossible task. Also, many endangered and threatened species reside at the marsh now that were probably not present when Patrick arrived. The vast reduction in Wisconsin wetlands threatens the survival of endangered species, magnifying the importance of Patrick Marsh in their protection. The complex interplay of human environmental change and ecosystem dynamics forces us to make significant value judgments in this restoration. The human element of this "natural" landscape simply cannot be ignored.

Difficult ecological decisions aside, broader competition over land use reflects conflicting cultural values, economic interests, and ecological limitations. Many species that were here before Europeans came are gone now because people have transformed the greater area around the marsh from viable habitat into agricultural or suburban landscapes. The Department of Natural Resources is aware of this issue. It hopes to expand the area of Patrick Marsh to accommodate a larger diversity of wildlife, but it must compete with an expanding city. Sun Prairie completed the Patrick Marsh Middle School last month; it lies within just a few hundred yards from the marsh boundary.

Other surrounding landscape fixtures like the highway on the north and houses on the south cannot be removed or ignored. The strict boundary separating the marsh from human civilization symbolizes the complex ways in which we have selectively embraced and rejected parts of our landscape as nature. The biological and physical features of Patrick Marsh undoubtedly will continue to reflect these attitudes and values as they have in the past.

Patrick Marsh is a rich landscape, bearing on its face the marks of glaciers, wildlife, the Winnebago, Europeans, and Americans. The richness of this place is as cultural as it is wild, recording and reflecting a past that includes the intimacy of the Winnebago migratory lifestyle, the revolution of American agriculture in the 19th and 20th centuries, the ambivalence of American values, and the delicacy of deer tracks imprinted onto last night's snowfall. As much as our culture tempts us to erect barriers separating humans and nature, Patrick Marsh shows us that we cannot disentangle ourselves; our stories are bound in a single volume. As people have shaped the land, so the land has shaped people.

References

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I thank Dennis Mengling and Peter Klein for sharing their knowledge of Patrick Marsh and for helping me to find these resources.