



The Landmark

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News from the Four Town Land Trust

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FARM TOURS A GREAT SUCCESS

The Land Trust held its first farm tour on July 22nd, and it can be counted a success. It was estimated that about 70 people came to tour the four farms we saw, and there were many favorable comments to be heard.

It started with a visit to Tex Mulnite's peacocks, which proved fascinating to everyone. Afterwards, Tex and Rita passed out peacock feathers of all types. Then we climbed aboard a bus and took a driving tour of the extensive and fertile farmland in the Windsorville area, after which we stopped at Tom and Sharon Muska's Applebrook Farm for a wonderful tour of their orchard. We then proceeded to Albert and Donna Grant's Melhurst Farm, where we saw horses, sheep, and chickens, and learned about the processing and dyeing of wool. Finally, we stopped at Jack and Mavis Collins' Powder Hill Farm, where we saw the cows being milked and the calves being fed and toured the whole dairy. As we passed along the way from farm to farm and on the way back to the cars in Windsorville, many different uses of agricultural land were pointed out and discussed, and questions asked and answered.

Everybody appreciated the opportunity to get out and see operating farms, and the day was enjoyed by all. We would like to thank the four families who hosted us on their farms, for without them the tour would have been impossible. We would also like to thank Smyth Bus Company for providing us with a bus and driver, and we would also like to thank the wonderful driver who took us around. And of course, the volunteers who put their time into it also deserve our thanks.

LANDWARD

The first installment of this column was extremely broad - an overview of the entire geological history of the region. Now I'm going to go to the opposite extreme and discuss something very specific and very limited geographically: the East Windsor bogs.

Relics the last time Connecticut was glaciated, they are extremely rare. To quote Tom Perry in the June 1987 issue of the Newsletter of the Connecticut Botanical Society, "There are only a few dozen areas of Sphagnum-dominated, acidic peatland left in the state, and these remaining areas are endangered... They present an unusual challenge to those interested in preserving rare species and habitats in Connecticut." Of the fewer than 50 bogs in Connecticut, 3 are in Windsorville. Only 27 of them contain Black Spruce - they are the only place Black Spruce grows in the state - and 2 of the 3 bogs in Windsorville are Black Spruce Bogs.

Furthermore, according to Ken Metzler of the DEP, the Windsorville Bog (the northern of the two Black Spruce Bogs) "is rated as a good example of this particular type of peatland, as compared to other similar bogs in Connecticut," and, "The Scantic Bog (by the Sportsman's Club) is unusual in its plants and hydrology." He has never been in the Wapping Bog. Many plants found in the bogs are unable to survive under less favorable conditions and unable to compete under more favorable conditions - that is, they are very vulnerable to any changes in the bog's ecology. It is clear that our bogs are well worth protecting and in need of protection.

The bogs contain a number of very interesting plants. Besides the Black Spruce and the Sphagnum and other peat mosses, they contain leather leaf, pitcher plant, sundews, sheep laurel, bog laurel, and cranberry, as well as many more common wetland plants such as larch, gray birch, and highbush blueberry. They also contain a few uncommon insects.

The formation of this type of bog requires very particular circumstances. The life cycle of such a bog goes like this: The glaciers left a very irregular surface behind when they melted, with piles of sand and gravel and rock scattered here and there, and the occasional big chunk of ice. When the ice melted, the depressions filled with water. Where the water was particularly mineral-poor, it was colonized by Sphagnum. The key is mineral pooriness - bogs have no higher mineral content than rainwater, which as you know has very few minerals in it. Virtually any body of water will have a higher mineral content than that, for all are fed by either surface runoff or groundwater or both, and both have considerably higher mineral content than rainwater.

With higher mineral content, most bodies of water were colonized by other plants as well. Where those plants formed a continuous floating mat, the plants would trap falling rainwater and utilize that more and the lake water less as the mat thickened, favoring the species which tolerate low mineral content, such as Sphagnum and heath. Where there was significant surface runoff or wave action, such a change was impossible. Sphagnum moss, once

well established, makes its environment even less hospitable to other life by releasing acid. These bogs are extremely acid places, with a pH below 5. In addition, with no water flow or wave action and the surface of the water covered by an inches thick mat of vegetation, the water eventually loses nearly all of its oxygen.

The combination of lack of minerals, lack of oxygen, lack of light, and extremely acid conditions makes for an environment under the Sphagnum mat where virtually nothing can live. Even the decay organisms are greatly inhibited, causing the buildup of a Sphagnum peat under the living plants. This is especially true in cold climates.

Once the peat is thick enough, bushes and even trees will grow on it. Heaths are quite common on bogs, as are Larches and Black Spruces. At this stage the vegetation is still floating, which is why the bogs are called quaking bogs, and the surface of the mat is still very nearly at the original water level. Given enough time, the peat will fill the bog from top to bottom. At that point, the vegetation is no longer floating on top of the water but supported from below by the peat. What that means is that it can now grow upward above the level of the lake, forming a mound. Of course, the moment it does that it leaves its water behind, and if rainfall is insufficient, it may stop growing. That is the case in Connecticut - our bogs will never become raised bogs.

The Windsorville Bog is a pond border bog, meaning the mat has not yet closed over the entire surface. It is also a dwarf shrub bog, because of extreme mineral lack. The Wapping Bog is a thicket bog, indicating that it is not quite so short of minerals. The Scantic Bog doesn't even have trees yet. There is active agriculture near all three bogs and has been for centuries, so the mineral content of the bogs is probably rising slowly over the years. How much of an effect this is having is not known, but it is to be expected that as the bogs gain nutrients they will become less inhospitable to more species and the bogs will be invaded by plants which were unable to survive there in the past. That in turn means more competition for the current species, and some of them may be reduced in numbers or even die out. There are also past or present gravel removal operations adjacent to all three bogs, but again the effect on the bogs is unknown.

What can be done to protect these bogs? As with any piece of land, that depends to a great degree upon the owners. The owners of the Windsorville Bog and the Scantic Bog have agreements with The Nature Conservancy that they will protect their bogs. They are to be lauded for recognizing valuable natural resources and making a commitment to protect them. However, it is only a handshake kind of protection - they could decide at any time to violate it, and worse, it is not the least bit binding on future owners. While the ownership is not expected to change in the near future, change always comes eventually, and more permanent protection should be sought.

ANNUAL MEETING

The annual members' meeting will be held on September 30th at the Melrose Schoolhouse. It will start with a pot-luck supper, after which we will be addressed by Nick Bellantoni, the state archaeologist. The public is welcome, and of course members are encouraged to come. The official notice is being enclosed with this newsletter with more detailed information. If you have not received the notice but would like to come, you can call 627-8062 to get further information.

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All comments contained herein are those of the editor and are not necessarily those of the Land Trust.



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