Wessels Talk and Walk Article By Mary J Metzger

"The central New England transitional forest is diverse as it has over 140 woody species from both the northern Boreal white and black spruce forests, and the Temperate oak forests to the south, but it's cultural history is one of sheep fever."

Ecologist, professor, and author Tom Wessels outlined the signs left from New England's first large scale market farming in a talk Saturday at the Groton School, sponsored by the Groton Conservation Trust as part of its 50th year anniversary, and a grant from the Groton Commissioners of Trusts Fund.

In 1810, Vermonter William Jarvis was able to smuggle 4,000 Merino sheep out of Spain during the fog of the Napoleonic War. These prized and embargoed animals had been developed for their fine, non-itchy wool. Two years later, during the War of 1812, tariffs were imposed on all imported British wool. The development of power looms for the rising mill towns gave further incentive to New England farmers to begin the rapid clearing of forests for the grazing of sheep. By the 1840's nearly 80 % of the land had been deforested.

With instability in tariff regulations the price of wool dropped. And the over-grazing of 5 million sheep so eroded the New England soils that in the 1840's half the people living in western Massachusetts and Vermont left for the more fertile land of Ohio. Unlike the overgrazed Mediterranean pastures, the forests of New England did return, but signs of that boom and bust agriculture can still be found.

"The 125,000 miles of stone walls in New England were built in about 30 years," Wessels stated. "There was no longer enough wood for fencing, and overgrazing had exposed the stones."

The early Fence Warden was a powerful town position during sheep fever times. These officials walked the stone boundary lines and could level fines if walls did not meet a minimum height. They could also bring a transgressor to account for his lack of diligence before a Sunday congregation.

"Grazing sheep could devastate a grain field, so to keep the peace it was important to maintain the stone walls."

The overgrazed pastures rebounded first with very low-growing non-native basal rosette weeds that sheep could not get their teeth around. These were followed by non-native coarse weeds, like thistles, then exotic berry-producing thorny shrubs, like the Multiflora Rose. Trees sprouted in these shrubs, beyond the mouth of grazers.

"If it is a diverse canopy, the area was overgrazed for a long time. One species stands are usually indicative of old hay fields, which were not grazed and also do not have the exposed stones."

As depicted in his book <u>Reading the Forested Landscape</u>: A <u>Natural History of New England</u>, Wessels talked about the weird apple trees he discovered early in his career. He found some of these bonsai trees to be over a hundred years old, left tiny by the constant grazing of sheep, but surviving. Most of these apple trees are now gone. Another iconic sign of the early pastures, the large horizontally low limbed pasture trees will soon follow.

Following the talk, Wessels led a group through the Trust's Gamlin Crystal Spring Conservation Area. Mid-way through the walk they located the remnants of a stone wall, indicating pasture, and then just beyond was a huge, divided oak, which he could date to the mid 1800's, an indication that the back half of the property has always been forest land, knowledge new to the Trust.

To cap off their 50th year anniversary celebration, Groton Conservation Trust plans a November 8 family-friendly birthday bash at the Williams barn.