

Forest Association Addresses Feral Hogs, Climate Change, Shale Gas

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Eighty years ago our hilltops were bare of trees. But as dairy farmers left, the trees invaded pastureland and the forested landscape returned.

Now these forests face new environmental threats: feral hogs, Marcellus shale-gas drilling, and a changing climate. On Saturday, February 11, the Southern Finger Lakes Chapter of the NY Forest Owners Association hosted the fourth annual Peter Levatich Memorial Woodland Seminar to address these issues. About 75 people attended the morning workshop held at Spencer-Van Etten High School.

Feral Swine Problem Growing

It doesn't matter whether you call them feral pigs, wild boars, razorbacks or wild hogs – according to Cornell professor Paul Curtis, feral swine are a growing problem in New York. They are known to be in Tioga, Cortland, and Onondaga counties, and one sighting has been reported in Chemung County.

Feral swine eat hard mast (acorns and other nuts), competing with deer, bear, turkey and squirrels for food. The wild pigs also eat nests and eggs of ground-nesting birds and reptiles, and will kill and eat fawns and young domestic livestock.

Feral swine cause economic loss to farmers as they eat almost any agricultural crop; they'll also eat tree seeds and seedlings, including maple and timber crops. Their rooting and wallowing habits not only destroy crops and native vegetation, but also cause erosion and impacts water quality.

Feral swine have long, sharp tusks and they act aggressively toward people and pets. They also carry several diseases which they can transmit to livestock and humans, including swine brucellosis, E. coli, trichinosis, and pseudorabies.

It doesn't take long for a local population to establish itself, Curtis warned. Feral swine can breed as early as six months of age, several times a year. With litter size ranging from 2-8, a population can triple in just a single year.

DEC's goal is to eradicate these invasive pigs, said Curtis. Hunters with a small game license may shoot feral swine at any time and in any number – and they're pretty tasty, he said. There's only one problem: feral swine are smart. And they teach their young to avoid danger.

That makes hunting tricky. Curtis showed videos demonstrating how some entrepreneurial individuals have developed baiting stations with remote gate-closure triggers and established businesses based on night swine hunts. "If you do shoot, make sure you remove the entire family group," Curtis said. Otherwise they scatter and that makes control even more difficult.

Changing Climate Stresses Forest

Cornell professor David Wolfe addressed the impacts of a changing climate on New York's forests. The earth has experienced cycles of warming and glaciation over the past 400,000 years, but human activity over the past century is escalating the warming trend. Evidence comes from average winter temperatures, the "ice-in" and "ice-out" dates for Lake Champlain, VT, and the new 2012 "plant hardiness zone" map released by USDA just a couple weeks ago.

Ithaca used to be in zone 4, Wolfe said, showing the 1990 hardiness zone map. Now it's in zone 5. "New York winters are 4.4 degrees warmer than they were in the 1970s," Wolfe said. While growers might find that they can grow a wider variety of crops, the lack of freezing temperatures and snow cover may make it easier for some pest species to survive over winter.

Climate change also means an increase in the frequency of heavy rainfall and flooding events, similar to what we saw with Irene and Lee last summer. But that rain won't necessarily come when farmers – and forests – need it. Wolfe noted the trend to hotter and dryer summers, forcing growers to irrigate their crops.

"The living world is already responding to the warming trend," Wolfe said. He pointed to data on first-bloom dates for NY fruits. Apples are blooming 8 days earlier than they did 50 years ago, and grapes are blooming 6 days earlier. But are pollinators responding on the same timeline?

The problem with climate change is that species that depend on each other – pollinators, predators and prey – may get out of synch if one species responds to temperature cues and another responds to day-length cues.

What does this mean for forests? Wolfe pointed to this year's sugar season, early by two weeks. He noted that deer populations could benefit tremendously from warmer winters. "Less snow means better browse, better browse means better feeding and that means more deer," he said. "More feral pigs, too."

A warming climate will mean that some tree species will not thrive here. The maple-beech-birch mix we have now will give way to a different forest landscape of oak-hickory-pine – "assuming the feral pigs don't eat all the acorns and hickory nuts," Wolfe said. And we'll see more weeds, such as Japanese knotweed (bamboo), kudzu, and poison ivy, he warned.

Drilling & Forests

The best thing foresters can do to minimize the stresses on forests, says Wolfe, is to control invasive species, protect forests from fragmentation, and manage nutrients. Unfortunately, intensive Marcellus shale drilling promotes those very impacts in forested landscapes, said Bob Hansen, an extension forester from Pennsylvania State University.

"Hopefully you [New Yorkers] can learn from the things we screwed up," Hansen said. "And maybe learn from what we are doing right." Bradford and Tioga counties in PA have seen a noticeable drop in their unemployment rate due to drilling. But the economic gains have come at some cost to the timber industry and the ecological services that the forest provides.

One of the impacts Hansen has noticed is the tremendous increase in gravel mining. "How do you replace a mountain?" he asked, showing a slide of a quarry that has reduced a hill to nearly nothing in three years. He also noted that wide pipeline right-of-ways provide corridors allowing invasive species access to new areas.

Wetlands are particularly hard hit, Hansen said. He suggested that landowners establish buffer areas around vernal pools and other sensitive areas.

For more information on Southern Finger Lakes Chapter of the NY Forest Owners Association go to www.nyfoa.org/docs/SFLNwsltrJan2012.pdf.