

Lyme Times Cover, Nov. 13, 2008

Beaver Come Home to Oswegatchie Hills, Learning to Live Together

Friends of the Hills Welcome Resident Beaver... with a "beaver deceiver" drain
by Suzanne Thompson

It can be a love-hate relationship: Beaver (*Castor canadensis*) have been important part of American history, culture and ecology for thousands of years. As inhibitors of rivers, streams, lakes and ponds, marshes and wetlands, their work can be fascinating to observe, and beneficial to maintaining biodiversity in the region.

Trapped out of most of New England by the mid-1800s, the iconic animals have again become ubiquitous after being reintroduced in the early 1900s. They are happily multiplying and moving back into their natural habitat as Connecticut's native forests have reclaimed a landscape denuded by colonial farmers and Industrial Revolution demand for timber.

The Connecticut Department of Environmental Protection (DEP) estimates there are 5000 to 8000 beaver in the state these days, more than at any other time in the past 300 years. They are sharing habitat with 3.4 million people on 3.2 million acres of land dominated by residential, commercial and industrial development.

With their industrious engineering nature and taste for tree bark, North America's largest native rodent can also be seen as a nuisance, especially to anyone with trees. Or who didn't want the creek running through their yard turned into a pond.

The Friends of the Oswegatchie Hills Nature Preserve (FOHNP), who have saved 600 acres of pristine habitat along the Niantic River in East Lyme, are elated with their discovery this summer of a beaver in Clark Pond. The pond dam is at the entrance of the preserve off of Route 161, next to the Vet's Field.

"We haven't seen any beaver in this whole watershed. God knows how it got here," said Greg Decker, the newest FOHNP director, who happens to live next to the preserve entrance. "With beaver once again plentiful, it's not legal to trap and relocate them," he said. "It is legal, however to trap and kill the animal."

Decker and Marvin Schutt, one of the founders of FOHNP, first thought they were picking up sticks that some kids had been playing with on the dam. The manmade ice pond had been installed about 100 years ago to supply ice blocks to the Niantic fishing fleet.

The state repaired the concrete wall and earthen dam after the floods of 1982, Decker said, including a drainage point or swale that allowed excess water to run down into Shaw's Cover and feed into the Niantic River.

But when the globs of mud and significant piles of sticks showed up, the men recognized the work of a beaver. Decker and his wife, Ceil, sat out by the pond dam one evening and saw the critter.

“We’re excited that the preserve is attracting different species of wildlife. There hasn’t been a beaver there for a hundred years,” said David Ayers, fellow board member, who volunteers his time for preserve maintenance with Decker and others. “You go for walks through the preserve and see healthy coyotes, and now a beaver, and you know that the whole food chain is working well. It’s due to having that 600 acres of land not developed, so it can support this wildlife diversity.”

When one or more beaver move into an area, it changes the wildlife habitat, not the least by creating dams and notching and cutting down trees to build their characteristic lodges.

“If he starts cutting trees, he could change the whole ecology of the pond,” said Decker, who has spotted only one animal so far. Beaver, which are monogamous, will take on a new mate if the first one is lost. Couples can have two to six pups a year; by the end of the second year, the adolescents are kicked out to go make their own home.

While the FOHNP welcome native species returning and bringing ecological changes, they also knew they had a potential water and resource management challenge on their hands.

“When beaver find running water, they have the natural inclination to build a dam to stop it,” said Decker, who runs the research boats for the environmental labs at Millstone Power Station. He’s read that beaver can build dams fourteen to eighteen feet tall just to stop what they view as a pernicious water leak.

Meanwhile, water pressure could build and erode the integrity of the man-made dam. It would also flood access to the head of the preserve’s walking trails.

They contacted Paul Rego, CT DEP Wildlife Biologist, who put them in touch with Sean Guinan, Humane Society of the United States (HSUS) Connecticut Field Office in New Haven.

The HSUS established the Beaver Remedies program in 1997 to help homeowners, municipal leaders, land trusts, public works and highway departments to coexist with beaver. The program offers consulting and tree-wrapping services and installs water flow control devices to stop flooding problems.

The best systems to control beaver flooding are based on deception and exclusion, according to HSUS. The trick is to drain water without letting the beaver hear it splash, which would drive them to build another dam.

The HSUS has come up with a “beaver deceiver,” a simple set-up of drainage pipes through the beaver dam to control the water level. It cost the organization about \$800 for

HSUS staff to run portions of two fifty-foot lengths of 8-inch flexible black plastic drainage tubes through the beaver dam and down over the man-made dam. Both the water intake valve on the pond side and the end cap, protected by a mesh screen, below the dam, are set below water level.

So the beaver don't know someone is keeping their bathtub from overflowing.

Tinkering with water flow like this is a regulated activity, Decker said, so the FOHNP also had to consult with the Inland Wetlands Commission. It gave the go-ahead for the piping system, officially called a Beaver Impeder Installation.

What this achieves, Decker pointed out, is a peaceful coexistence of beaver and nature enthusiasts, and an ideal public education opportunity to promote cohabitation of beavers to people. The beaver dam – low and manageable – is still there. It's likely that the beaver will build a lodge somewhere.

The beaver's timing is fortuitous for FOHNP, which is working on community outreach and education. In the past year it received about \$8500 community education grant from the Community Foundation of SE Connecticut.

The group plans use a portion of these funds to clear out the entrance area, replacing the current temporary sign with a kiosk of educational displays. In addition to information about the history of the Hills, the topography and biodiversity found long the hiking trails, the group plans to include information about the benefits of coexisting with beaver, and hopefully, some photos of it at work and play.

Decker has been trying to take night-time photos of the beaver with a wireless, solar powered, infrared camera that uses motion detection. He's also using it to photograph a couple of peregrine falcons nesting on Millstone's towers. But he hasn't succeeded yet. So far, it has captured shots skunks, dogs and hikers.

Beaver are busy in the fall, building up their food staff for the winter. Since they are active through the winter, Decker expects to have more chances to get a photo of his new neighbor.

Decker welcomes people, schools, scouts and other youth groups to come and tour the hills and to see both the beaver dam and the "beaver impeder" system at work.

"We like to show them the area and the environmental diversity here. It's a wonderful resource to have in town," he said.

To contact the FOHNP, go to www.oswhills.org

The Case for Coexisting with Beaver:

Beaver are native to much of North America. Unlike most native wildlife species, CT DEP points out, they have the ability to modify their surroundings to meet their needs.

- Beavers are vegetarians, feeding on inner and outer bark of trees, leaves, shrubs and water vegetation. They like the stalks and tubers of water lilies, which although beautiful, are invasive species in Connecticut waters.
- Beaver need bodies of water at least four feet deep so they can build their lodges, with underwater entrance and exit points. So they build dams and cut down trees for their lodges.
- Nature experts call this process the “beaver flowage cycle.” Once beaver move in, natural succession takes over. It can lead to a “beaver meadow,” an open, grassy space. Taller grasses and sedges move into wetlands and marshes. Shrubs, and eventually forest trees evolve in the areas that drain.
- Beaver ponds entice all kinds of different insect and animal species to feed on the habitat. This includes water birds, ones who depend on cover near the edge of ponds to survive. The ponds can create water supplies, provide for groundwater recharge and provide flood control.
- Beaver ponds serve as natural sedimentation ponds; the trapped silt, rich in nutrients, creates more fertile ground for growth of trees, instead of running off into the Sound. This natural filtration system improves water quality and aquatic productivity.
- Beaver tend to stay in an area for a number of years. They welcome other species, but do get territorial with their own species.
- Once beaver deplete their food source in one area, they move on to another. Eventually, the beaver-harvested area will recover.
- Beaver are nocturnal animals, resting in their lodges during the daytime, and being industrious at night, so dusk and dawn are good times to spot them.
- The simplest way to protect trees from beavers, according to the Humane Society of the United States, is to set free-standing cylinders of heavy gage wire mesh around each tree. These need to be four feet high, with about 5 to 6 inches between the tree trunk and the mesh. Unlike groundhogs, beavers won't burrow under mesh fencing, so staking is not needed.

Sources:

Solving Conflicts with Beaver brochure, HSUS, available in print and online at www.cornwallconservationtrust.org

Beavers in Connecticut, Their Natural History and Management, CT DEP Bureau of Natural Resources Wildlife Division, <http://dep.state.ct.us>