PROFILE ON TOM BRIGHTMAN

Several months ago, Tom Brightman, Durham's Land Stewardship Coordinator, led a fascinating walking tour of the ecology of Thompson Forest. Who knew that many of the roots of the quaking aspen in the forest are biologically connected making the trees essentially a single organism, one of the largest on the planet!

Tom has served in this position for a few years following the retirement of Ellen Snyder, our first land stewardship coordinator. He works with the Town under contract through his consulting business, Osprey Ecological Services. His vast knowledge is impressive but this is not a surprise given his extensive experience.

Tom grew up in Philadelphia and attended Lower Merion High School, the same school famously attended by Kobe Bryant and Carden Welsh. He received a degree in American Civilization from the University of Pennsylvania.

After graduation Tom sold residential real estate on the Main Line in Philadelphia (noting that his timing wasn't perfect with 15% interest rates). These were high-end homes but in cookie-cutter subdivisions. In hindsight, he realizes that witnessing this insensitive land development helped shape his ecological perspective.

Fly Fishing

Tom then managed a ski shop in Beaver Creek, Colorado (near Vail) for four years. He also did a lot of fly fishing and worked as a guide on the Eagle and Colorado Rivers. What a life!

Fly fishermen, in their iconic boots and waders, use artificial lures that mimic the various insects that trout feed on. Different insects hatch at different times. Tom says, "The trout key into this. If the wrong insect presents itself, the trout takes a look, says, 'Nahhh, I don't think so,' and goes back underwater." He adds, "You also have to present the fly and manipulate the line properly. An insect naturally floats on the surface at the same speed as the current, without any drag. Plus, the river does not flow at one speed." A great deal of skill is involved.

Back to School

Tom returned to U. Penn to obtain a Masters in Environmental Studies with a focus on stream and wetland ecology and restoration.

He was hired as a conservation easement manager at the Brandywine Conservancy in Chadds Ford, Pennsylvania. He monitored the use of private lands, including some Amish property and parcels that were owned by the Wyeth family, for compliance with the easements. Most important, he met his wife Tara, a soil scientist by training, who also worked at the Conservancy.

He says, “It’s a beautiful area. There are Revolutionary War battlefields and lots of equestrian property and natural preserves.” The wonderful Brandywine River Museum contains art by N.C. Wyeth, his son Andrew Wyeth, daughter Carolyn Wyeth, and grandson Jamie Wyeth.

After that stint, Tom served as Land Stewardship Manager at Longwood Gardens in Kennett Square, Pennsylvania. He managed around 800 acres of meadows, wetlands, woodlands, and agricultural lands, formerly the personal estate of entrepreneur and philanthropist Pierre DuPont of the renowned DuPont family. One challenging project involved restoring land under a former highway that had cut through significant environmental resources after the state department of transportation agreed to relocate the road.

Tom and Tara relocated to New Hampshire (she is a native New Englander) and he got a job as a wildlife biologist with New Hampshire Fish and Game. Tom worked with landowners on habitat management for early successional species (whose habitat is former farm fields that are reverting to shrublands or forest) like the New England cottontail rabbit and the woodcock. He left to start his consulting business in 2020.

Work in Durham

Tom assists the Town of Durham in caring for our substantial collection of preserved properties including Wagon Hill Farm, Doe Farm, Thompson Forest, Oyster River Forest, Spruce Hole Bog, Longmarsh Preserve, Jackson’s Landing, the Town Landing, and smaller parks and sanctuaries. He also monitors easements the Town holds on private properties.

His work involves wildlife and forestry management; helping to build and maintain trails, seating areas, and bridges; providing interpretive elements like kiosks and maps; and managing invasive species. He says, “I really enjoy working in Durham. This is a great group of people, very professional and forward thinking.”

Invasive species and climate change

Regarding invasive species Tom explains that some invasives – buckthorn, barberry, Japanese knotweed, bittersweet, multiflora rose - are so established now that they cannot be eradicated without a huge investment. Other species, such as garlic mustard, are just starting to intrude and those are the ones we should focus on with early detection and a rapid response.

Invasive species were imported from other parts of the world and thus have no local natural predators. They grow vigorously and crowd out or kill other plants and animals in a way that native species rarely do. Bittersweet strangles trees; native Virginia Creeper, by contrast, grows by suckers and does not damage its host.

Plants typically develop chemical defenses against insects. Certain insects evolve an immunity over time to feed off those plants safely, but not in such numbers that they harm the host. Such insects may adapt over many years to dine on invasives like bittersweet but much damage will occur to the native plant community in the meantime.

Tom says, "Climate change has made things worse. For example, the hemlock woolly adelgid [native to Asia] that is destroying our hemlock forests was kept under control by New England's cold winter temperatures. Now the pest is steadily moving north as the temperature rises.

"Winter nights are warmer, there is more rain than snow, less water is available in the dry months. The fire season in the western U.S. is now twelve months instead of three months. To say that we have been slow to respond is an understatement."

Optimism

Asked what he is optimistic about, Tom says that the many smart people working to solve these problems gives him hope. "Ecosystems have great capacity to regenerate and to adapt if given a chance. The world will renew itself. It just may not be in the way we want it to be."

And then there are Bassett hounds. Tom and Tara, a research assistant in education and social policy, live in Durham with their Bassett hound, Henley. Tom says, "The breed is described as being stubborn, loyal, and easily distracted. That captures them. They are loyal but they would go home with anybody who has a treat." They are not as discriminating as trout.