The Beavers at Candler Park – An Ongoing Urban Saga

By Jack White, Board Member of the Candler Park Conservancy

In urban areas, recognizing that beavers are a valuable keystone species is only the beginning. Working with municipal authorities to protect beavers – even those that are flourishing (sometimes *especially* those that are flourishing) – is often a major challenge.

A decade ago a coalition of neighborhood and environmental groups partnered with the City of Atlanta on a 319(h) grant that daylighted a headwaters stream of Peavine Creek alongside a golf course in Candler Park in northeast Atlanta. In many ways it was a routine restoration; underground sections of the stream were put back on the surface, a hexagonal concrete channel was removed, the stream's contours, width, and meanders were restored, grade controls were installed, and an abundance of native trees and flora were planted. That decade's drought happened to be in full force as we finished, and the plant material took hold slower than it might have, but success on most of the project's goals was never in doubt.

With one exception. Our project narrative had whimsically included inviting beavers to move in. There were numerous signs of them downstream and we hoped they would take over at Candler, but for two years they were a no-show, perhaps daunted by 2007's scant rain, which was only 60% of the last few decades' average.

The next summer the rains came, and to our enduring delight, so did the beavers. They first built a large pond that concealed the entrance to their lodge and over the next few years steadily expanded their reach, building pond after pond. Two were huge; the others were smaller. You can see their ponds immediately to the left of the Terrace Avenue label on Google Earth:
https://www.google.com/maps/@33.7693082,-84.3372634,574m/data=!3m1!1e3

The golf course was – and is – still in use, and that activity, the beavers, and their new wetlands and ponds co-existed side-by-side very well for half a decade. It helped that the (then) golf course manager had an agronomy degree and appreciated all the new habitat. The new inhabitants attracted an ever-increasing number of citizens (many of them children) who became fans; they were soon joined by birders attracted to the new residents living in and around the ponds. Some golfers lived locally and became fans of the beavers too.

The beauty and obvious functionality of the ecology was an unmistakable asset. The abundance of bullfrogs, dragonflies, waterfowl, swallows, bats, and mosquito fish (the latter perhaps reintroduced deliberately; we were never sure) produced one of the very few mosquito-free locales in Atlanta. None of us have ever been bitten by a mosquito at the ponds.

But there have been challenges, too, especially after the departure of the original golf course manager. The official support of the city Parks Department notwithstanding, there has always been some tension between the need for golf course maintenance and the vision of the beavers. The latter are quite content with wetted damp areas on the margins of their ponds that increase in size and spill onto

fairways; golf course workers see that result as a big problem and tend to react accordingly. But dueling with beavers by hand is a tough task; they are persistent and hard-working.

In the last six months, though, two dams have been partially torn down; on both occasions, tracks of large wheeled equipment were photographed nearby. Official denials of involvement from the golf course have been proffered; absent definitive proof, they stand. And the beavers have partially rebuilt the dams, though to a lesser size.

After a long period of quiet co-existence, these setbacks have been disappointing and frustrating. In retrospect, though, the years of peace and cooperation may have been the unusual part. In a quarter-century of walking urban and suburban streams, I have come across many structures of varying sizes built by beavers. Those that are perceived as threatening urban infrastructure usually don't last long. A fine group of beavers along Baker Road in southwest Atlanta were casually dynamited by city crews who decided that the roadway (many feet above the water level) was endangered. A similar outcome obtained on North Peachtree Creek in DeKalb above I-285 and in Gwinnett near Satellite Boulevard, in both cases absent any specific or defined problem.

Almost every stream in the Atlanta metro area is paralleled by a sanitary (or combined storm) sewer line, a reality that is often cited as requiring a swift and dire municipal reaction. Except in sites where citizens have intervened and objected (as recently happened on Intrenchment Creek near Confederate Avenue), most of the ponds that have survived are those that have gone unnoticed or are fortuitously not near infrastructure. Beavers around the old Decatur Water Works near the confluence of Burnt Fork and South Peachtree Creeks have had a nice run, as did a group that lived in a huge pond off Fairburn Road on South Utoy Creek. They are not the norm.

Those of us who value and appreciate beavers need to be active and observant. They are vulnerable out of the water and require a safely accessible supply of nearby plant material. In urban areas, that may dictate periodic re-planting of the flora that these animals need. (We have done that at Candler; we'll be doing more this winter.)

When their food supplies dwindle in undeveloped areas, beavers move on to a new site, starting again the cycle of creating dynamic and diverse environments - the very acts that make them a keystone species. The old ponds undergo the usual forest succession to pines and hardwoods. But moving downstream or over the ridge to new locales is rarely an option for beavers in urban areas, where land uses are normally very contested.

We all understand that there are circumstances in which beaver ponds cannot co-exist with urban infrastructure, but such a conclusion should never be reached in an automatic or casual manner, as it so often is. The benefits that these animals bring are so significant that every situation merits a careful and measured analysis, with a search for potential mitigating solutions that can preserve the beavers.

As a rule, we humans ought to be reluctant to intervene in the harsh realities of nature in favor of a certain outcome or species. As much as we appreciate beavers, anthropomorphizing them or any other

non-domestic creature is not helpful; they are wild animals and not cute pets. They can take their chances in the cold-blooded realities of nature; what happens there is not for us to manage.

But a corollary of that is that we not dislodge them except when it is absolutely necessary. Beavers can compete in nature, but not with humans on machines or armed with dynamite.

Our job as citizen scientists starts with educating ourselves and our communities about the key role of beavers in our local ecology. We will only be successful in that if we meet and interact with local municipal personnel (supervisors and crew) and carefully monitor their approaches and actions. Including those men and women in our education efforts on this topic is a critically important task that can result in a much healthier – and much more interesting – environment for all of us.

If we can do that successfully, both we and the beavers will sleep better – us at night and the beavers during the day.

Some more resources:

The opening chapters of Alice Outwater's 1997 book *Water, A Natural History* provide a detailed history of the rise of the fur trade and the resultant near-extirpation of the beaver in North America. It's out of print, but still available in many public libraries. Her approach to stormwater is dated, but it does illustrate how far the thinking on that important topic has come in 20 years. (Pretty good last name for a writer on this topic, too.)

Dietland Muller-Schwarze's 2011 book *The Beaver* is well-done, fun to read - and still in print.

The PBS show *Leave it to Beavers* (it was inevitable) showcases their impressive engineering, with great underwater camerawork. It's available at the PBS store and still appears on Nature reruns on cable. http://www.shoppbs.org/search/index.jsp?kwCatId=&kw=beavers&origkw=beavers&sr=1

Two newspaper articles provide a sampling of the evolution of public and professional thinking about this fine creature:

- NYT reporter Cornelia Dean's article from Concord (MA) notes the species' rebounding numbers and sounds a theme frequently heard in the last 20 years: Beavers are a "nuisance but also a blessing" that – gosh, darn – "we have to learn to live with." http://www.nytimes.com/2009/06/09/science/earth/09beaver.html
- Phoung Le strikes a very different tone in his 2014 AP reporting from the Yakima Valley in Washington, where non-profits trying to restore salmon habitat welcome trapped 'nuisance' beavers, whose "dams, ponds and other structures add complexity to an ecosystem" and "help store water" under and above ground. http://news.yahoo.com/nuisance-beavers-put-restoring-streams-060636492.html

And, finally:

This optimistic 2014 BBC documentary details the highly successful rebound of the European beaver from near-extinction; reintroduced widely in the last quarter-century, the species is now found in 25+ countries across Eurasia.

http://www.bbc.co.uk/nature/life/Eurasian_Beaver