Beavers in Georgia

by Bob Kobres, UGA Libraries (retired) and Volunteer of Blue Heron Nature Preserve

When you see a beaver family's dam in a Georgia stream, you may want to take a moment to think how fortunate we are that this ancient riparian maintenance crew is returning to resume the work that we ignorantly interrupted. We almost did in this incredibly important keystone species because of the utility of their fine pelts, and in many ways we are still suffering from that unfortunate episode!

Beavers have been an integral part of the riparian system in the northern hemisphere for millions of years. We know this from fossils as well as from the characteristics of trees that co-evolved along with beavers. For instance, trees like willow and cottonwood that grow along waterways will regrow after being cut down. In other words, the tree is not killed by the beaver taking the above-ground part but instead grows deeper roots and puts out shoots from its trunk. This more bush-like form of the tree serves to stabilize the banks of waterways and also provides accessible browse and nesting areas to other wildlife. The only trees killed by beaver activity are those that are flooded, and these low lying dead trees become ideal homes for several types of birds that have evolved with access to beaver created wetlands.

But what about the fish? Don't those dams mess up their migration? Well, actually there will be more and bigger fish in a beaver-controlled stream than in a free flowing one, as the former is the ancient norm while the latter is a recent human creation. The unobstructed stream is an erosive assault on the health of the land due to several factors, but the most important loss is the groundwater recharge. It is an ample supply of cool water seeping back into a beaver-deepened pond from adjacent earth that keeps conditions ideal for fish throughout the summer. Creeks without beavers behave as drains rather than holders of rains! Actually, some of the sea level rise over the past few centuries is due to our decimating the beaver population during that time period. In general, our efforts to tame the waterways and drain the wetlands have dried the land, so water that used to soak deeply into the ground now flows quickly to the sea.

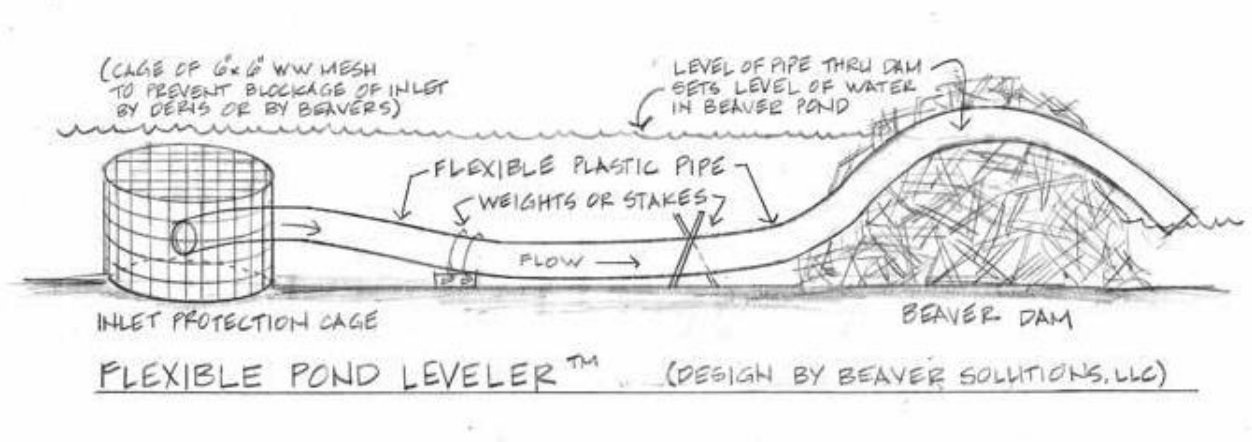
It has long been understood that beaver dams filter and trap sediments, clearing the water downstream; however, other lost beaver benefits that we are just realizing include carbon capture and denitrification of the water. We need beavers back in our watersheds in greater numbers to better retain rain and allow that intermittent input of fresh water to soak into the ground. This will return many now dry-most-of-the-time creek beds to year-round full streams.

The biggest barrier to fully returning the naturally evolved ecological services beavers once provided is us. We've occupied their former habitat and modified it with no consideration for these vital citizens of the wild. In fact, because beavers were mostly trapped out by the time most European settlers had arrived, we have no recent cultural experience of healthy beaver-controlled watersheds; rather, we are accustomed to fast flowing streams that rise and fall due to rainfall amount and frequency. So although beavers have spread throughout Georgia since the wise reintroduction of them in the 1940s, beaver families are often killed when they try to reoccupy waterways we have modified to suit ourselves.

Might we alter our status quo response to beavers that cause us problems? Currently, Georgia law classifies beavers as nuisance animals like rats and simply warns to 'be careful' when

shooting near water. Certainly these family-oriented social critters deserve better treatment than that from us! Tools to mitigate human/beaver conflict have been developed, and in general the cost of employing them is less than the recurring expense of hiring someone to trap the beavers and destroy their dams. The current process of removal only temporarily alleviates the problem because the next beaver family will find the site just as attractive as the family that was exterminated. The best plan for beavers *and* us is to use these inexpensive solutions--heavy gage fence material to protect trees we don't want them to use and drain pipe to control the level of their pond. This way the beaver family's pond has time to mature and so provide a full suite of ecological services.

The most effective and least expensive way to ensure the health of our riparian systems in Georgia is to welcome the natural maintenance and repair crew whenever and wherever we can!



Additional Resources:

Beavers: Wetlands & Wildlife: http://www.beaversww.org

Worth a Dam: http://www.martinezbeavers.org/wordpress/

The Methow Beaver Project: http://methowsalmon.org/beaverproject.html

In praise of water, and beaver: http://www.canadiancattlemen.ca/2015/10/06/in-praise-of-water-and-beavers/

Woodland Magazine: Leave it to beavers: https://www.forestfoundation.org/woodland-leave-it-to-beavers

Nature: Leave it to beaver: http://www.pbs.org/wnet/nature/leave-it-to-beavers-leave-it-to-beavers/8836/

On YouTube: https://youtu.be/XS6CAHqzwVE

Phys Org: Beaver take a chunk out of nitrogen in Northeast rivers: http://phys.org/news/2015-10-beavers-chunk-nitrogen-northeast-rivers.html

Phys Org: Ecologists enlist beaver, Walmart in conservation effort: http://phys.org/news/2015-10-ecologists-beavers-walmart-wetlands-effort.html