

# *Liberating Arts: GGC School of Liberal Arts*

## **GGC STUDENTS ANALYZE GWINNETT COUNTY PARK TREES**

In Spring 2023, two GGC students joined an outreach project sponsored by the Gwinnett County Parks and Recreation Department. They were intrigued with two questions: how old and how large are some of the trees in our local forests?

Lawson Bruen, a geography minor and environmental science major, and Logan Bennett, a biology major, sought answers. Inspired by a special topics course in geography taught by Dr. Joe Henderson,



*Bruen (right) and Bennett (left) coring a large beech tree at Collins Hill Park.*

Professor of Geography, they selected trees of various species from five Gwinnett County parks. In addition to determining tree ages and diameters, they found their precise locations with a Global Positioning System and produced a Geographic Information Systems map of the trees for public use.

Using equipment purchased with funds from a GGC Seed Grant, they cored the trees with an increment borer

and prepared the tree cores for analysis by affixing them to wooden mounts. They next sanded them so that the ring patterns were clearly visible. Trees in this area produce annual rings. By coring as closely as possible to the pith or inner part of the wood, the students tried to determine the exact year of the oldest ring in the core.

The tree with the oldest inner ring is in Little Mulberry Park and dates to 1855. The one with the largest diameter (49.2 inches) is at the Isaac Adair House in downtown Lawrenceville.

The fieldwork was physically taxing at times, because the trees they selected were some of the

largest and (presumably) oldest in the forest.

Bruen and Bennett found themselves braving the elements at times, including strenuous climbs up steep inclines. They found the most challenging to be at Little Mulberry Park, home of some the largest and most magnificent trees in the county. Notwithstanding the difficulties, Bruen and Bennett were always eager to get in the field and take on the next challenge.

Bennett observed that the experience was “surprisingly fun” and “a nice way to get outside and observe nature as you learn about tree rings.” Bruen agreed, adding, “studying dendrochronology was the closest I’ve ever come to using a time machine. Having the ability to not only understand a single tree’s past, but also the history of the surrounding forest it grew in, was truly exciting science. We were doing detective work in real time.”

Dr. David Dorrell, Associate Professor of Geography (and co-investigator for the GGC Seed Grant), is working with students in his GIS course to develop an online map of the trees. “You will be able to ‘geocache’ your way to one of these beautiful trees, all near park trails,” he said. “No bushwhacking will be necessary.”

By Joseph Henderson and Richard Rawls



*Bruen (front) and Bennett analyzing tree cores.*



*Bruen (right) and Bennett (left) coring a loblolly pine at Little Mulberry Park*