

South Fork Fandango – Paddle Georgia 2010

June 21—Broad & Savannah Rivers

Distance: 12 miles

Starting Elevation: 460

Ending Elevation: 400

Obstacles/Rapids: There are no major obstacles or rapids.

Restroom Facilities: **Mile 0** Hwy 72 Broad River Sand Co.
Mile 12 Hwy 77 Take Out Site

Points of Interest:

Mile 1.5—Island & Granite Quarry—Just downstream from the railroad bridge you'll pass by the head of an island (easily missed) on river right and then a powerline cut. Due south from here is one of the area's many quarries that have made Elberton the "Granite Capital of the World." No other city in the world produces more granite products annually than does Elberton, and you can see evidence of this industry everywhere in Elberton. Businesses make use of the granite for their signs, sample monuments from the various manufacturers line the main thoroughfare downtown and Elbert County High School's famed football stadium is known as the "Granite Bowl." The 15,000-plus-seat stadium was constructed using some 100,000 tons of the locally abundant raw material. Each year, workers in Elberton produce some 250,000 granite monuments. In addition to monuments, Elberton granite is transformed into countertops, converted to gravel and used in street curbing. It's popularity as monument material is a result of its hardness. The hardest material on earth, diamonds, have a hardness of "10" and few materials with the exception of precious stones have a hardness of greater than 7. Elberton granite tips the hardness scale at 6-7. No other natural stone used for commercial purposes is any harder or more difficult to break than granite.

Mile 2.5—Piedmont Granite Boundary—The Elberton Granite deposit runs approximately 35 miles long from southwest to northeast, beginning just south of Lexington and extending just north of Elberton. It runs about two to three miles beneath the land's surface and stretches about six miles wide. When you pass the railroad bridge about one mile below Ga. 72, you've entered that six mile wide swath and from here to the take out, you'll be paddling over this massive geological feature created some 320 million years ago when the African and North American land masses collided. This collision opened fractures in the earth's crust that allowed magma to push up toward the earth's surface. Slowly, this magma solidified, creating the mass of granite that is mined today.

Mile 3—South Fork Broad River/Oglethorpe County—The South Fork of the Broad River marks the county line between Madison and Oglethorpe counties. Upstream several miles, the South Fork holds Class II-III rapids and Watson Mill Bridge State Park—home of Georgia's longest covered bridge which spans 229 feet across the South Fork. The bridge was built in 1885 to allow access to a mill built by Gabriel Watson in 1798. This mill operated until around 1900 when a raceway was built to bypass the mill and deliver water to a turbine that generated electricity to power a textile mill in nearby Crawford.

Mile 6—Sandbar & Oxbow—An excellent example of the ever-changing nature of rivers can be found at the site of this massive east-facing sandbar. During relatively recent years, the Broad has carved a new path at the point of this sandbar, cutting off a quarter-mile loop of the Broad. In high water, one can still paddle the "old" course of the Broad. In low water, you'll pick your way through the river's new path, which is littered with a graveyard of partially submerged logs and limbs—evidence of the destruction wrought as the Broad sought out its new course.

Mile 7.5—Granite with Pegmatite—If you observe the granite outcroppings along the river bank here, you will notice unusual vertical "stripes" embedded in the granite. These are known as pegmatites and were formed millions of years ago as the magma that formed the granite slowly cooled and solidified. During this process, cracks opened in the granite allowing "younger" magma to push up through the cracks. The result is these strips of coarser grained minerals embedded within the fine-grained granite. These pegmatites are found at numerous locations along the Broad within the boundaries of the geological unit known as Elberton Granite.

Mile 9.5—Swimmin' Holes, Bartram's Bass and the Robust Redhorse—Throughout this section of river, there are numerous deep swimming holes at the bases of the granite outcroppings that line many of the river's bends. During drought conditions on the Broad, these deep holes become important refuges for the river's fish. During scouting trips in the summer of 2008, we witnessed hundreds of fish in these holes. The Broad is home to some unique fish including the Bartram's bass and the robust redhorse (some may remember the redhorse from our 2007 journey down the Ocmulgee).

The robust redhorse is found only in Atlantic coast rivers in Georgia, South Carolina and North Carolina. It was first identified in the 1870s, but no further specimens were recorded by scientists until 1991 when Georgia DNR biologists discovered a "mystery fish" during an environmental assessment of Sinclair Dam on the Oconee River. Eventually, the fish was identified as the "lost" robust redhorse. Since then, state and federal agencies have worked to identify additional populations and reintroduce the fish in some locations. The Broad was chosen as one of those locations because it is one of few remaining free-flowing rivers within the fish's historic range. Today, wild populations are known to exist in the Ocmulgee, Oconee and Savannah rivers in Georgia and the Pee Dee River in South Carolina and North Carolina.

Bartram's bass is a black bass that is endemic to the Savannah River basin. It seeks out the fast-moving water found in the shoals of the Savannah and its tributaries like the Broad. While other bass like the "redest bass" look similar and seek out the same habitat, Dr. Bud Freeman, director and zoology curator at the Georgia Museum of Natural History (and the husband of Paddle Georgia naturalist, Dr. Mary Freeman) has determined that Bartram's is a species of its own—separated by at least a million years in the evolutionary chain from the redeye. Freeman has nicknamed the species "micropterus bartrami" in honor of famed naturalist William Bartram who roamed the area in the 1770s identifying plant and animal species. Other scientists have scoffed at the notion of this new species because black bass are known to interbreed and hybrids of the various species occur. The fish themselves have responded to these scientific doubters with outrage. Said one Bartram's: "The idea that we evolved from the lower life form of red-eyes is preposterous." All joking aside, identifying new species is important because recognition of these species as unique can help prevent the introduction of non-native sport fish species that can hybridize native species.

Mile 11—River Cooters & Turtle Protections—The turtles that drop off logs and rocks as you approach, and sometimes surface to inspect you, are most likely Eastern river cooters—the most common of Georgia river turtles. Usually cooters max out in size at 12 inches (carapace length) and are recognized by the thin yellow stripes on their heads and necks. We'll be traveling through their domain at the tail end of the nesting season, so as you paddle know that there may be much amorous behavior taking place subsurface—they mate on the river bottoms. After mating, the female will head to land to lay her eggs—often times on a river sandbar. If you see signs of turtle activity on the sandbar try not to disturb the area; the nests are generally shallow and the eggs incubate through the summer, with hatchlings emerging in August and September. Cooters are mainly vegetarian, feeding on river grasses, but will consume crayfish, tadpoles, small fish, snails and insects.

During the 2010 Georgia General Assembly session, Georgia's river turtles gained protections as the legislature passed a bill which Gov. Sonny Perdue later signed that prohibits the harvest and export of freshwater turtles. The turtles are highly sought-after in Asian markets as an exotic food. Incidentally, the same bill allows those who hit and kill a bear with their vehicles to keep the carcass after notifying Georgia's Department of Natural Resources of the incident.