

The Altamaha

Georgia's Little Amazon

by Dirk Stevenson

Smooth as glass, the broad twisty path of slow-flowing water is framed on both sides by a green wall of vegetation. The scissor tails of a swallow-tailed kite slice the air, while a wood stork soars on a thermal like a mini-pterodactyl. A cacophony of frog song rings from a nearby river swamp, and a monster fish rolls on the surface. It's early morning, but already sweat drips from your forehead and insect activity is riotous. Then your pulse quickens when, as your eyes chase the wake of an animal swimming across a nearby slough, you realize it's a snake over two meters long.

The above setting could be any number of places in the New World tropics, but in fact is an exceptional stream located in southeastern Georgia, the Altamaha River. With more bends and curves than a tightly-kinked rat snake, the Altamaha River winds 137 miles from its origin at the confluence of the Ocmulgee and Oconee Rivers before joining the Atlantic ocean. With a watershed encompassing over 8 million acres, this mighty Coastal Plain stream pumps an average of 100,000 gallons of fresh water into the sea every second. Where the Altamaha debouches and releases

its nutrients seaward near the historic fishing village of Darien, the result is one of the most expansive estuarine and salt marsh systems on the globe.

But what really makes the river special is its isolation. The longest free-flowing (i.e., undammed) river on the Atlantic Coast, the Altamaha is only crossed by bridges five times. Much of it is inaccessible, even by boat. A forested, swampy floodplain up to five miles wide and encompassing an estimated 170,000 acres insulates the river. Recognizing the beauty and uniqueness of this wild river, the Nature Conservancy launched the Altamaha River Bioserve in 1991, and placed it on their list of "The 75 Last Great Places."

Despite these impressive credentials, the herpetofauna of the Altamaha River has not been well-studied. In 1996, I initiated a series of reptile/amphibian inventories of public lands and preserves along the river. In this article, I attempt to capture what I find special about this region, and share my knowledge of its scaly and amphibious inhabitants. I'll focus on the fauna of the river itself, and the remarkable floodplain habitats that border the river: bottomland hardwood and oak-beech-magnolia slope forests, mucky hillside



Giant water tupelos, their trunks bearing high-water marks, in an oxbow slough on the Moody Forest Natural Area. Photo by Dirk Stevenson.

seepages, oxbow lakes and sloughs, and cypress-tupelo swamps. Along the way I'll describe some special places with which I've become intimately acquainted.

Low Country Spring Lizards

You may not associate the low country of the southeastern Coastal Plain with high salamander diversity or abundance. Au contraire. The river floodplain and adjacent forested seepage habitats are blessed with 11 species, many of which are locally abundant in appropriate habitats. Comprised of species that are members of five different families, the fauna run the gamut from the beautiful (Mud and Marbled Salamanders) to the bizarre (Two-toed Amphiumas and Lesser Sirens.)

Not far upstream from where William Bartram made his exciting discovery of the endemic shrub (now extinct in the

wild) *Franklinia alatamaha* (Theaceae) in 1765 are some interesting hillside seepages—located on Penholoway and Sansavilla Wildlife Management Areas, near Jesup, Georgia. The flora of these easy-on-the-eyes north-facing bluffs is dominated by a forest of large white oaks, American beech, and southern magnolias. Orange flowers of azaleas decorate the slopes in the spring. Hallmark indicators of seepage habitats include thick carpets of rich green sphagnum moss, and the convoluted surface roots of sweet bay and loblolly bays. The latter, an evergreen tree, has deep-furrowed grey bark usually spotted with pink lichens.

“Muck”—red-brown, slurry to pudding-like pockets of partly decomposed hardwood litter—forms around perennial seeps and springs. Hillsides strewn with mucky seepages are heavenly places for salamanders, especially those with lengthy larval lives. In southern Georgia, the larvae of both the Southern Red and Gulf Coast Mud Salamander inhabit mucky seepages, and require 1–2+ years to complete development. I commonly find smaller specimens of Two-toed Amphiumas and Lesser Sirens under logs resting on or partly embedded in muck. Man, it's fun to try and grab those you exhume before they backpedal and quickly disappear into the ooze! During the cool seasons, gently parting a sphagnum mat bathed in seepage often reveals a Southern Two-lined Salamander guarding her clutch of eggshell-white ova. River swamp floodplains proximal to seepage areas often support enormous populations of the fleet-footed Three-lined Salamander.

It is no coincidence that a broad swath of bottomlands fringing the Altamaha are home to two ambystomatid salamanders that are partial to hardwood forests: the Marbled and Spotted Salamander. From what



Note the enlarged masseter muscles atop the head of an adult male Lesser Siren in breeding condition. Photo by Dirk Stevenson.



Marbled Salamanders migrate to floodplain breeding sites in the autumn, with females depositing eggs on land in basins that later flood. Photo by Dirk Stevenson.



An adult male River Frog, the white spots on the lower lips are a diagnostic character. Photo by Dirk Stevenson.



Always a neat find, the Southern Red Salamander is restricted to permanent seepages and spring-fed streams. Photo by Kiley Briggs.

I've seen at a number of Coastal Plain locales in South Carolina and Georgia, it appears that adult sizes attained by Spotted and Marbled Salamanders are significantly smaller, on average, than those reached by adults at more northern sites. The recently protected Moody Forest Natural Area supports both species; here one can hike all day on higher terraces in the floodplain under a remarkably diverse forest of towering sweet gum, water hickory, green ash, and numerous oak species, including overcup and swamp chestnut oaks.

Anurans of Primeval Cypress

A long sand road hugs a power line for 20 miles, abuts a bombing range, and crosses a broad black water slough before reaching its terminus at a small sand bluff above a prehistoric grove of ancient bald cypress estimated to be 700 years old. The “Murff Tract,” until recently timber company land, is another success story in the annals of recent and significant conservation activities along the Altamaha by the the Nature Conservancy and the Georgia Department of Natural Resources.

Like the Moody Tract, the Townsend Wildlife Management Area, which encompasses the Murff Tract, located on the north side of the lower Altamaha in Long and McIntosh counties, protects an abundance of river swamp and adjacent sandy uplands. Wildlife abounds, including river otters, bobcats, wading birds, and Rafinesque's Big-eared Bats, a swamp chiropteran that roosts in the hollow boles of giant bald cypress or water tupelos. Come late summer, I can guarantee you won't be in these woods long before hearing the freakish cackling of Barred Owls.

Anurans are common and diverse; the fauna of the Murff Tract typifies that of the river basin. Our frequent spring-summer “frog-strangler” thunderstorms spawn head-splitting choruses dominated by Eastern Narrowmouth Toads, Southern Toads, and a quartet of handsome hylids (Green, Squirrel, Cope's Gray, and Bird-voiced Treefrogs).

The latter species, along with my favorite ranid, the River Frog, *Lithobates heckscheri*, are signature denizens of these river swamps. River Frogs have curious personalities and some odd habits. Their noxious and enormous tadpoles (they overwinter and reach five-plus



Above: The author dipnetting a stagnant pool in the Altamaha River floodplain, habitat for Lesser Sirens and Redbelly Watersnakes. Photo by Ben Brody. **Facing page bottom:** Field hikes along the Altamaha sometimes disclose River Frog metamorphs in enormous numbers.

inches before transforming into red-eyed froglets) aggregate in large schools that travel and forage in unison. The especially warty (for a Ranid) adults go limp in the hand, post-capture. On a warm afternoon this past May, I heard three males sound off when a dark cloud passed overhead. "Grrr-grrrr-grrrr" they snorted, slowing revving engines answering each others' breeding calls.

Alligator mississippiensis

Altamaha alligators are wild, shy, and secretive. I am proud to say that our dirty-backed gators

shun the limelight—unlike those shiny-scaled green-black photogenic beasts along Everglades National Park's Anhinga Trail that merrily pose for glamour shots between pickup games of "toss the Cooter Turtle."

Except for the lower portion of the river, alligators are generally encountered one at a time, and many field days pass when I don't see any. Put another way, one does not come to this river to see large numbers of large alligators. Now, I've met some folks who've said, "Well Dirk, you know, our kids swim in this

river; now doggone right, you bet we kill the bigger alligators." To what extent this is true I honestly don't know. But there are still many gators, and many large gators.

I made a couple dozen visits to the vast Altamaha river swamp before I finally met the monster. This was at the height of a 100-year drought, and on earlier sojourns to a mostly-dry beaver swamp under a heron rookery I had found his tracks (his hind foot-print swallowed my shoe twice), and the den tunnel complex where he wintered. A number of Yellowbelly



A triumvirate of newly hatched alligators found during August, 2010, on Bullard Creek Wildlife Management Area (Jeff Davis County, Georgia). Photo by Dirk Stevenson.

Slider corpses missing heads and limbs (probably raccoon or otter leftovers) rotted on shore close to one of these "gator holes".

in pursuit of channel cats and an introduced leviathan, the Flathead Catfish.

Then, one mild day in early March, I came around a large cypress and found him exposed, all 11 feet of him, sunning lazily on the bare spoil at one of his den tunnel entrances. He was thoroughly encrusted with the drying, chalk-colored earth from which he'd emerged, and deep in alligator dreamland. I was able to get dang close, and could have touched him with my stump-ripper.

Incidentally, the Altamaha is a mecca for local folks who enjoy fishing, hunting, and camping on the picturesque sandbars. Activity peaks spring-summer when anglers employ telescopic "bream-buster" rigs for sunfish (Redear, Redbreast, Bluegill) and hang "limb-lines"

Similar to the Amazon, seasonal flooding of the Altamaha's floodplain results in a massive release of nutrients as organic litter is broken down. The floodplain is a nursery for many sunfish and catfish species, among other animals. With respect to its fish fauna, the odd, wacky, and primeval are amply represented in the Altamaha, including two species each of sturgeon, gar, and pickerel; the bowfin, American eel and the salamander-like swampfish, a small nocturnal creature of the benthos that is closely related to fishes of caves and subterranean waters.

The man who loved softshells

My epitaph might read "The man who loved softshells." There is no better activity for a child



Above: An adult American Alligator observed during a pronounced drought, poised for action at the entrance of its den. Photo by Dirk Stevenson.

Left: The salamander-like swampfish is rarely collected, except by mucky herpetologists sporting dipnets! Photo by Dirk Stevenson.

Below: The redbreast sunfish is a signature species of Coastal Plain rivers in Georgia. Altamaha River populations of this species have declined due to predation by an introduced fish-eater, the flathead catfish. Photo by Dawn Scott.



(or grown-up child) than the meditative and highly addictive experience of slowly walking sandbars looking for buried softshell turtles. During low-water conditions, some Altamaha bars extend for over ¼ mile. The beautiful bars along the blackwater Ohoopie are composed of snow-white, coarse “barking” sand that squeaks underfoot—prime habitat for the specialized Sandbar Tiger Beetle.

Flapjacks with olive carapaces, Spiny Softshells characteristically submerge in shallow water at the edge of the bar. Fresh footprints and the characteristic dimple where they rest give them away. Focused and locked in as I walk the bar, I spot the prominent furrows of native pearly mussels and the pencil-thin raceways of common sanddragon larvae. This species and the splendid adult Eastern Ringtails, their abdomens colored in ophidian patterns, are among the ten species of clubtail dragonflies (*Gomphidae*) that call the river home.

In addition to the Spiny Softshell, turtle species essentially confined to the moving waters of the river main stem include the River Cooter and an engaging mollusc-cruncher, the Loggerhead Musk Turtle. Freshwater turtle biomass is also considerable in quiet backwaters and swampy oxbow lakes, where sliders and Florida softshells are common. The kinosternid turtles of the region provide an interesting lesson in habitat partitioning, with the Loggerhead Musk being a stream animal, the Stinkpot occurring in both the river and in permanent floodplain wetlands, and the Striped Mud Turtle preferring shallow floodplain pools. During early spring, when the yellow blossoms of bladderwort blanket the surface of the swamps, Striped Mud Turtles can be observed in abundance puddling about in the shallows. Note: our south Georgia *Kinosternon baurii* almost always lack stripes on the carapace, unlike the striped specimens common in Florida.

A Conspicuous Lack of Hots

Simple, depauperate, predictable, but still pretty cool. These words adequately summarize the snake fauna of the Altamaha. The late Charles Wharton, accomplished ecologist and herpetologist, mentioned the great size reached by Brown Watersnakes in southern Georgia. Well, I can vouch for the presence of 4-5 foot females, often spotted on riverside willows. The eyes of these fish-eaters—sometimes called “water rattlers” by the locals due to their superficial resemblance to the timber rattlesnake—are atop their heads, giving them an anaconda-like appearance. Other aquatic snakes of the river and its swamps include the clandestine and psychedelically-patterned *Farancia* (Mud and Rainbow Snakes).



Cute beyond repair, hatchling Gulf Coast Spiny Softshell Turtles are often found buried in the shallows along sandbars. Photo by Dirk Stevenson.



The field herper is best advised to be very careful with finger placement when handling the muscled-jawed Loggerhead Musk Turtle! Photo by Dirk Stevenson.

Terrestrial species at home in the floodplain include racers and ratsnakes, and a sprinkling of small-fry snakes like ringnecks and earth snakes. Herp species diversity in the Coastal Plain of the southeastern United States is among the highest in the nation, and well-inventoried properties like the Savannah River Site (SC) and Fort Stewart (GA) are known to support approximately 100 species of amphibians and reptiles. These sites have pine upland habitats (sandhills, flatwoods) in which are embedded isolated wetlands (like

cypress ponds and Carolina bays), and harbor a number of species (including snake faunas of over 30 species) that are not present along the Altamaha. The still impressive herp biota of the Altamaha includes approximately 60 species, and 16 species of snakes.

Venomous snakes are actually few and far between along most of the Altamaha. Cottonmouths, pronounced “moccasins” in southern Georgia, as well as Copperheads and Timber Rattlesnakes are essentially absent from

swamps bordering the Altamaha River, except for cottonmouths which inhabit marshes along the lower portion of the river near Darien. Thus far, the most plausible factors for this relate to the regular flooding that scours the Altamaha floodplain annually, removing leaf litter, and resulting in floodplain wetlands being largely devoid of grassy vegetation.

Two icons (the Eastern Indigo Snake and the Eastern Diamondback Rattlesnake) have among



Clockwise from left: The handsome Rainbow Snake, especially secretive and highly aquatic, has a specialized diet, feeding mainly on American eels. During early spring, basking Brown Watersnakes adorn tree limbs along the Altamaha River in considerable numbers. A large Cottonmouth found in southern Georgia; this species is actually rare/absent in most Altamaha River swamps. All photos by Dirk Stevenson.



the largest home ranges of any snake species in North America, with territories of large indigo males in south Georgia often exceeding 1,000 acres. Foraging snakes of both species may range up to several miles from Gopher Tortoise burrow colonies on xeric sand ridges where they overwinter. Thus, on occasion, the glossy, imperiled indigo, or the coiled form of a hunting diamondback, are spotted in the floodplain. Watch your step!

Other Hidden Secrets

I may have made the Altamaha River out to be wonderful, a romantic, idyllic place. But before you go and purchase the next Greyhound ticket to Ludowici, I had better come clean with you. Please let me tell you more about what you might expect.

Spring is a time of snowfalls of heavy yellow pollen, biblical boat-sinking floods, and mass emergence of “no-see-ums”—tiny biting midges that feed on blood—your blood. They prefer the thin skin of an eyelid, but are always willing to settle for an earlobe.

Then there’s that hard summer sun, pounding and unrelenting, and its sinister sister, infernal humidity. Those cottony clouds that metastasize into a black wall of portent by afternoon, then the lightning bolt in a nearby pine and bone-chilling thunderclaps. Diabolical



A young Eastern Indigo Snake found basking near a Gopher Tortoise burrow in December. Sand ridges within the Altamaha River basin are a stronghold for this federally protected species. Photo by Dirk Stevenson.

tabanids (Deerflies, Yellow Flies, Greenheads and Horseflies) that leave a swollen welt the size of a silver dollar and have a penchant for ankles and rump-skin locales that most middle-aged herpers can’t reach.

The turnover of autumn, when the swamp water—tired, used up water—becomes ripe with odors and leeches and choked with bowfin feces and bobbing tupelo drupes.



The Altamaha River at Grey's Landing, Toombs County, Georgia. Robust populations of native pearly mussels and a quality steak-and-beer joint are present nearby. Photo by Dirk Stevenson.

Oh, there’s more. The bear-sized wild boar at the dry-down, grunting and gnashing his tusks, the plump diamondback coiled cryptic near the trail, the tree frogs in the campground showerhead, the fresh alligator tracks at the swimming hole. The used diapers and spent bait cans at the boat landing, the groin-deep muck at the edge of the oxbow, the talons on the rope-sized smilax vines that could upend any NFL fullback.

Do the following sound like fun places to go? Lewis Island. Paradise Park. Alligator Creek. Hurricane Creek. Moody Swamp. Seed Tick Road. Big Hammock. Ohoopee Dunes. Griffin Ridge. Watermelon Branch. Kneebuckle Island. Moccasin Fish Camp.

Oh, be sure to bring a compass. And plenty of water.

Still interested? Maybe this story will help you decide.

This past May, I was wade-fishing near the confluence of the Ohoopee and Altamaha rivers, on Big Hammock Natural Area. Between casts of a spinner bait into the tea-colored water of an eddy, I admired the scintillating orange and greens of the Redbreast and Bluegill Sunfish decorating my stringer. The air was steady with bird song, the rollicking notes of prothonotary warblers ringing from nearby willows. A sizeable flock of White Ibis, bills blood-pink, worked a crayfish jubilee in a nearby swamp.

Sand drifting between my toes and shiners pecking my calves, I continued to wade, and herp life appeared: a large softshell surfaced in a deep pool downstream and oared about for several minutes; a lone Bird-voiced Treefrog whistled from a riverside tupelo. Clouds were moving rapidly, and darkening. I sensed the quickly-changing weather that seems to equate with animal activity. Then, peering a foot or so deep into the river I spotted the form

of a writhing serpent. I could hardly believe it. Vermillion stripes flashed in the sunlit water as a plump adult Rainbow Snake wrestled an eel.



Do you have **something to add?**
We welcome all of your comments online at www.fieldherpforum.com/hnforum or you may email your comments directly to us at feedback@herpnation.com. Select comments may be printed in upcoming issues.

WWW.INSERTSWORK.COM

SPECIALIZES IN CUSTOM MADE, HAND SCULPTED INSERTS FOR ARBOREAL SNAKES.

THESE SPECIALLY MADE INSERTS ARE ALSO AVAILABLE FOR MOST REPTILES AND AMPHIBIANS.



EACH INSERT IS MADE USING A ENVIRONMENTALLY SAFE EPOXY. AN EXTREMELY TOUGH AND DURABLE PLASTIC. EVERY PIECE I CREATE IS UNIQUE AND DIFFERENT FROM THE NEXT.

VISIT US AT WWW.INSERTSWORK.COM
CONTACT RON AT 516 - 431-1654
OR EMAIL INSERTSWORK@YAHOO.COM
TO DISCUSS THIS UNIQUE WAY OF HABITAT DESIGN.