

# Swamps, Sloughs, Springs, Sinkholes and More: An Expedition to the Floridian Gulf Coast

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**I**n late October of 2005, seven North American native fishheads gathered and stayed at the FSU Marine Lab. The facility is about an hour south of Tallahassee and is located on a quiet stretch of undeveloped coastline overlooking Apalachicola Bay. A friend of mine was one of the Lab's security guards, so I've been there many times over the years. My visits were always interesting not only because of the wonderful setting, but also because the FSU faculty and students often maintained various aquariums and large circular flow tanks for research and observation. A couple of years ago I learned that the dorms and housing were available to NANFA and other non-profit, nature-minded organizations. After a scouting visit last spring with Ranger Bob Culler, Steve Ellis and Ed Scott, I decided to organize and offer to NANFA members an "Expedition to the Floridian Gulf Coast."

## Welcome to "Hell"

I arrived a couple of days early to arrange gear for the trips and supplies for the beach house, and to re-scout the route through Tate's Hell, a vast undeveloped state forest.

Tate's Hell got its name from a man who ventured into the swamp in chase of a Florida panther that had been killing his hogs. He became disoriented and wandered lost for seven or eight days, enduring snakebites and being forced to drink from the swamp's murky waters. He finally staggered on to a

couple of woodsmen near Carrabelle. They asked who he was and where he had been. As he collapsed he murmured, "My name is Tate and I've been through Hell."

The weather was perfect and I tried to brush aside any concerns of Hurricane Wilma, which was well to the south. Thankfully, the weather remained beautiful throughout the trip while Wilma languished near the Florida Keys. The Tate's Hell Forestry Department had recently printed a large full-color map and brochure of the forest and its waters and roads, which allowed me to explore new areas without getting lost (as I had on previous trips). With the help of this excellent map, I scouted a new route. I selected

several sites to visit, ranging from swamps and river crossings to ditches, barrow pits and backwaters. The season had been dry as expected and the waters were low. Fishes are concentrated and trapped in the remaining pools, making them an easy feast for herons, snakes, raccoons, seines and dipnets.

Mid-day on Thursday the 20th, Phil Nixon arrived from Illinois, followed by NANFA Fellow Konrad Schmidt, his wife Mary, and their 16-year-old son Bryan. They were on a family holiday, leaving Minnesota several days before and spending their final days on St. George Island and in Apalachicola. Klaus Schoening and Fritz Bazeley arrived from Cincinnati soon thereafter, having driven through the night. We selected our bedrooms and settled in. The beach house was wonderful—kitchen, tile floors, sofas, lawn chairs, ice, laundry, and through the sliding glass doors a patio overlooking the beach with a refreshing sea breeze blowing through.



*Fig. 1.*

The expansive dreamlike view of a dwarf bald cypress forest. Photo by Klaus Schoening.

We drove to the nearby town of Panacea for an evening meal of local seafood, sweet tea, cheese grits and Key Lime pie. We discussed our itinerary and the rules for the “Tate’s Hell Challenge,” a point-based contest consisting of questions, riddles, firsts, and a scavenger hunt. Upon our return to the lab we strolled the moonlit beach, talking, wading, and floundering with jig and lantern in hand while a few clamored about for scavenger clues.

*Where the sea leaves the Lab a bottle lies . . .*

### **Ditchfishing and Wormgrunting**

Friday morning we woke to a quick breakfast, prepared our lunches, and loaded the gear into three vehicles. Tate’s Hell forester (and friend) Ace Haddock accompanied us as we followed the coastline westward on Highway 98 and then turned north into the state forest. Our introductory first stop

was the boardwalk overlooking a vast stand of dwarf bald cypress (Fig. 1). Cloaked in soft green moss, the stunted trees extended far to the horizon. The boardwalk slanted upward and out over the water to a high sheltered perch. From here we could see starhead topminnows and a mass of pollywogs below. Beautiful white flowers, open to the morning sun, adorned the lily pads. A massive water moccasin eased across the water and through the vegetation. Then it began to flick its slender tail, perhaps in response to the vibrations we were sending down through the boardwalk structure. I was glad we saw the snake at the start of our day since concerns about venomous snakes and alligators ran high and I wanted folks to be well aware of them. And I was disappointed that we didn’t see the local alligator that often sunned itself at the base of the structure’s ramp. (The day before my blood quickened when the six-foot gator cruised by while I was on the bank watching a rolling mass of tadpoles.)



Fig. 2.

Fritz Bazeley checking his net for *Pteronotropis metallicus* or *Elassoma*. Photo by Phil Nixon.

We proceeded to our first sampling site, the dark-stained waters of the forest's roadside ditches. Generally, all the roads through the forest were made by dredging dirt and sand from the sides and mounding it in the center, creating a low road bordered by water-filled ditches. Everyone seemed a bit reluctant and cautious to be the first to step into the black snag-filled waters. But with waders on we soon found sunfish, pygmy sunfish, fliers, swamp darters and mosquitofish.

The next site, a stream, surprised me. The day before the stream had been dry except for several pools. But today the stream was filled and flowing even though no rain had fallen. Ace explained that the tides sometimes push fresh water far upstream. I was disappointed since I had expected that the

pools I saw yesterday would offer a plentiful yield with a few easy passes of the seine.

Pushing on, we stopped at a bridge that overlooked a beautiful expanse of savanna. Golden grasses waved in the gentle breeze, and tall pine trunks patterned in black and brown jutted high into the sky, capped with green. A boat launch near the confluence of Trout Creek and New River gave us a place to enter the water. We pulled our seine and came up with silversides, least killies, and a wildly colored dollar sunfish. We also dipnetted along the edges and from a couple of nearby ditches. Or, as the locals along these back roads call it, we ditchfished. We caught "flurs" (fliers), war-mouth, pirate perch, redbellies (redbreasted sunfish), "brim" and stumpknockers (sunfish), buttercats, and pickerel.

After a bit more of mucking the ditches, we gathered for lunch along the New River where the forestry department built a picnic pavilion and restroom near the bridge and boat launch. While scouting this location a couple of days before I had seen my first "wormgrunting." I watched as two kneeling, sweating men agitated earthworms to the surface by rubbing a steel bar across a wooden stake driven deep into the ground. I could feel the rhythmic, vibratory hum they pro-

#### Tate's Hell Challenge Riddle #1

*I live in the roots and tangles where I began,  
I was as most then a pore was rearranged.  
Now I'm ready to start life anew,  
And into these tangles I will spit and spew.*

What am I? (answer on p. 19)

*Fig. 3.*

Dipnetting the barrow (or borrow) pit just off of Highway 67 above Carrabelle. Photo by Konrad Schmidt.

duced in my toes and under my skin. Before long, they had a full can of worms for fishing. (You need a license to worm-grunt if you're reselling the worms, or if you're in the Apalachicola National Forest to our north.)

We found a spring the state had created by driving a pipe below the water table and down through a capping layer of stone. The pressure from the groundwater entering from the higher land to the north forces the water upward through the pipe and out. The water smells like sulphur but is not unpleasant to taste. Unfortunately, the surface of the spring was slick with algae.

Phil took a jarring spill and got covered in muck. I cleaned him up the best I could, then we settled down for a peaceful lunch. Ace spoke about the region's lore and history, including the story of how Tate's Hell got its name.

### **"Borrow Pits" and Lake Morality**

Disappointed in our river and backwater attempts (but not the scenery; Fig. 2), we decided to try a few sites I had sampled previously: a couple of barrow pits and a boat landing to the east of Highway 67. Along the way we stopped at

a road crossing that yielded our first pygmy killies, plenty of pygmy sunfish, and a few pirate perch.

We elected not to sample a pool I had stopped at the day before. Why? Because the wide black pool had now been adopted by a gator that must have been 3-4 feet long. Too bad. A good gator seining would have been invigorating!

After my seine buddy Ace headed back to Sopchoppy, I had a little trouble encouraging the guys to enter the area's snag-filled blackwater ditches and pools with me. Indeed, it does take some nerve to brave these waters. Around three years ago, Ace, a Tate's Hell biologist named Justin and I spent two days sampling and documenting the species we encountered in these waters. It was during the summer and it was brutal with heat and yellow flies. It's a hostile environment, and certainly "Hell"-ish if one was lost. And, of course, there's always the threat of encountering an alligator. It's worth the effort, though. One of the black, snag-filled ditches that Ace, Justin and I entered yielded some of the most beautiful bluespotted sunfish I have ever seen, their silver-blue markings glistening in the sun like living jewels.

Playing it safe, we moved on to the first of two barrow pits (Fig. 3) and then to the boat launch just off of Crooked



Fig. 4.

The prehistoric and enchanting Wakula River, home of Tarzan, Old Joe and the Creature from the Black Lagoon. Photo by Konrad Schmidt.

River. We found least killifish, goldenear topminnows and silversides. Barrow pits (or “borrow pits”) are where sand and rock were quarried years ago for road building or construction. They vary in size, depth, age and appearance and are found throughout the area. They often appear as rectangles on a map. When flooding occurs, fish can move into these low areas and become established. I had been to the second barrow pit we stopped at many times in the past, but I stopped sampling it a few years ago when a house was built on the property. During my scouting run I stopped by and introduced myself to the owner, a former mayor of nearby Carrabelle. He granted us permission to enter his property

and sample his barrow pit. When we did, I took a step along the water’s edge, telling everyone it was shallow and safe, and promptly went in over my waders! With the others dipnetting from the edges it proved to be one of our favorite sites of the day, filled with especially healthy goldenear topminnows. Later, as we were telling the mayor and his wife about the many fishes we had found, he commented that that end of the pit had been dug out to 10 or 12 feet a few years ago, thus explaining my over-the-waders plunge!

I asked the mayor about another site I had visited in the past but is now posted as private property. He gave me a phone number and his “mayoral” permission to visit. (It is nearly always a good idea to introduce yourself when you’re out exploring!) This next site, Lake Morality, had been a treasure in years past. It’s where I first saw the red-masked starhead topminnow. It’s difficult to get to and is full of reeds and other thick vegetation, but the water is delightfully clear. Too bad the heebie-jeebies I get whenever alligators are present prevents me from snorkeling it for long. Years ago, Lake Morality served as a recreational swimming pool for soldiers stationed at Camp Johnston, a World War II amphibious training camp. All that remains of the camp are old pier struts jutting from the water. Today, it is posted like many other

#### **Tate’s Hell Challenge Riddle #2**

*Oh tired and weary little traveler,  
Here is a friend or so they call her:  
A sunlit vessel with dangers hidden,  
Inside sweet nectar that is forbidden.  
Just climb into my peaceful bell,  
And of your flesh I will feed so well.*

What am I? (answer on p. 19)

**Table 1.** Fishes seen and/or collected during the Tate's Hell Expedition, 20-23 Oct. 2005. (Compiled by Phil Nixon.)

Bluntnose Stingray, <i>Dasyatis say</i>	Least Killifish, <i>Heterandria formosa</i>
Longnose Gar, <i>Lepisosteus osseus</i>	Sailfin Molly, <i>Poecilia latipinna</i>
Herring sp. (Clupeidae)	Diamond Killifish, <i>Adinia xenica</i>
Redeye Chub, <i>Notropis harperi</i>	Sheepshead Minnow, <i>Cyprinodon variegatus</i>
Apalachee Shiner, <i>Pteronotropis grandipinnis</i>	Squirrelfish, <i>Holocentrus adscensionis</i>
Metallic Shiner, <i>Pteronotropis metallicus</i>	Searobin sp. (Triglidae)
Redhorse Sucker, <i>Moxostoma</i> sp.	Dwarf Sand Perch, <i>Diplectrum bivittatum</i>
Channel Catfish, <i>Ictalurus punctatus</i>	Belted Sandfish, <i>Serranus subligarius</i>
Speckled Madtom, <i>Noturus leptacanthus</i>	Flier, <i>Centrarchus macropterus</i>
Grass Pickerel, <i>Esox americanus vermiculatus</i>	Bluespotted Sunfish, <i>Enneacanthus gloriosus</i>
Pirate Perch, <i>Aphredoderus sayanus</i>	Largemouth Bass, <i>Micropterus salmoides</i>
Mullet, <i>Mugil</i> sp.	Redbreast Sunfish, <i>Lepomis auritus</i>
Brook Silverside, <i>Labidesthes sicculus</i>	Warmouth, <i>Lepomis gulosus</i>
Golden Topminnow, <i>Fundulus chrysotus</i>	Orangespotted Sunfish, <i>Lepomis humilis</i>
Banded Topminnow, <i>Fundulus cingulatus</i>	Bluegill, <i>Lepomis macrochirus</i>
Marsh Killifish, <i>Fundulus confluentus</i>	Dollar Sunfish, <i>Lepomis marginatus</i>
Banded Killifish, <i>Fundulus diaphanus</i>	Redear Sunfish, <i>Lepomis microlophus</i>
Starhead Topminnow, <i>Fundulus dispar</i>	Spotted Sunfish, <i>Lepomis punctatus</i>
Gulf Killifish, <i>Fundulus grandis</i>	Swamp Darter, <i>Etheostoma fusiforme</i>
Bayou Killifish, <i>Fundulus pulvereus</i>	Blackbanded Darter, <i>Percina nigrofasciata</i>
Seminole Killifish, <i>Fundulus seminolis</i>	Everglades Pygmy Sunfish, <i>Elassoma evgladei</i>
Longnose Killifish, <i>Fundulus similis</i>	Okefenokee Pygmy Sunfish, <i>Elassoma okefenokee</i>
Pygmy Killifish, <i>Leptolucania ommata</i>	Sheepshead, <i>Archosargus probatocephalus</i>
Bluefin Killifish, <i>Lucania goodei</i>	Spanish Mackerel, <i>Scomberomorus maculatus</i>
Eastern Mosquitofish, <i>Gambusia holbrooki</i>	Hogchoker, <i>Trinectes maculatus</i>

places near Carrabelle. The region has seen lots of development in the last few years and many sites are posted or, even worse, have been stripped of vegetation and are awaiting houses and more development. It's disheartening that so many of my favorite local sites are experiencing similar fates. More people. More "progress." Very little stays the same.

We squeezed our vehicles through a narrow gate and came upon an excellent site just a bit south of Lake Morality. With clear water and a long, sloping and firm sand bottom, I would have snorkeled if my gear had been handy. We quickly dipnetted a new species for the day, *Fundulus cingulatus*.

Seeing the sun set low across the smooth water was a nice way to end our active first day. We got back into our vehicles just as the no-see-ums moved in with the fading light.

### Mullet on the Menu

We had talked about grilling the Spanish mackerel that the Schmidts had caught a few days before for dinner. But since we were so worn out, we opted for quick showers and an easy return to Coastal Seafood in Panacea for another fine meal of the Bay's bounty and southern fixin's. Mullet, crab claws, flounder, grouper, shrimp—just about everything the Bay had to offer except Apalachicola oysters, which were not available because of recent red tides. Also unavailable was mullet roe. This seasonal culinary treat was two or three weeks away, so none of us earned points for trying the local fried caviar.

Back at the lab, Bryan tried another night of floundering with no success. The rest of us relaxed or sorted and packed fish. Bryan entertained us by catching a variety of lizards, Mediterranean geckos and tree frogs. Giant walking sticks, moths and katydids perched on the concrete block walls of the lab. Phil, the entomologist, had plenty to photograph.

After dark, the facility's gates are locked. The labs, docks and beaches were ours to wander and explore all night long.

### Captain Crash and the Water Moccasin

On Saturday we headed to Wakula Springs (Fig. 4). We arrived early and explored the park and lodge, just in time to catch the "Jungle Cruise" with the witty and colorful Captain Crash at the helm. We saw lots of alligators and a mother manatee with her plump refrigerator-sized offspring. Captain Crash said gators 10 feet and bigger were common in the

#### Tate's Hell Challenge Riddle #3

*Submerged in the sea do I dwell,  
Other times a breeze can dry me well.  
I live my life in a bed,  
Among my kind though we will never wed.  
A boring life, one without feet,  
Finally to be presented at a feast.*

What am I? (answer on p. 19)

#### Tate's Hell Challenge Riddle #4

*Inside a castle is my home,  
Although the walls are not made of stone.  
A hole I live in to retire,  
From the raging wind of fire.  
Slow and steady is my creed,  
I don't have to be fast to have my needs.*

What am I? (answer on p. 19)

Springs, and that he had seen several deer not quite making the swim across the river. I would never swim here, but Tarzan and the Creature from the Black Lagoon did! (Some scenes from their movies were filmed here.)

After lunch under a stand of tall ferns, we headed downstream to a bridged site. I donned all my snorkeling gear only to find that the Wakula River was murky and that drunken locals were splashing at the boat launch. Something in the park just upstream was churning the water. Maybe exotic river weed was being removed. But on a weekend? We decided to try other sites, visiting a sinkhole for a quick snorkel followed by a slough. The spring-fed slough was much more to our liking—quiet, clear and peaceful, with lots of plants and diversity. Fritz earned another three points for being the first to see and correctly I.D. a hefty, coiled water moccasin. Bryan and I approached it for confirmation and the seemingly peacefully coiled snake sprang and took off more quickly than we could have run through the dense tangles. Fortunately, it was headed the other way! I have a newfound appreciation for these snakes and will not poke or agitate the next water moccasin I encounter. I got my fill of snorkeling (Fig. 5) while the others dipnetted through the vegetation or relaxed on the bank. We added chubsucker, redeye chub, pickerel, bluefin killifish, sailfin shiner, and a small, uniquely marked redhorse-type sucker to the list.

Back at the lodge we cleaned up and relaxed before a wonderful meal at their fine cloth-napkin dining hall—very delicious and bonus complimentary desserts for everyone. (Three evenings, three excellent seafood suppers!) We answered a few more quizzes and riddles and debated who were among the “firsts.” Who was the first to see a rattlesnake? A bluefin killie? A pitcher plant? Who was the first to fall into the water over his waders? We unanimously awarded Phil three points for his fall. Klaus earned many points for consistently being the first to collect, identify *and* properly spell the Latin name of the various species we came across.



Fig. 5.

The author in full snorkeling gear enjoying the aquarium-like views of McBride Slough. Photo by Konrad Schmidt.

We stayed up late, packing fish, tabulating Challenge results, and walking the beach. Bryan again went floundering and again was unsuccessful. I presented a Tate's Hell Survivor t-shirt to everyone, confident that we would all make it out alive the next day.

#### Thorns and Roses

Everyone packed for home on Sunday morning except for Phil and I. The seven of us headed back to Panacea, where we visited Jack Rudloe's Gulf Specimens Marine Lab, an educational facility with aquariums, touch tanks, sting rays, sharks, sea turtles, crabs, whelks, snails, and a gift shop. We had one last meal together and a final riddle (see Riddle #2) to break a tie for the Tate's Hell Challenge. The reason we needed a tie-breaker was because no one was up for the final challenge of netting and eating three mosquitofish!

#### Tate's Hell Challenge Riddle #5

*I live in the water and reach to the sky,  
My knees are dirty but are usually quite dry.  
My color is spring green but when the sun swings low,  
I lose all that help me grow.*

What am I? (answer on p. 19)





Fig. 5.

Group photo from the FSU beach house patio overlooking the bay. From left to right: Bryan Schmidt, Mary Stefansky Schmidt, Phil Nixon, Konrad Schmidt, Klaus Schoening, Fritz Bazeley and Casper Cox. Photo by Casper Cox.

Klaus deservedly won. Bryan came in second because of his prowess in the scavenger hunt. Klaus' prize was a copy of the wonderful book *Priceless Florida*. Other prizes included the *Florida Collection Guide* donated by Charlie Nunziata, a book of Jack Rudloe's coastal Florida and world adventures, a poster featuring a satellite view of the Apalachicola Bay, and a "Dangerous Fish" sign. Because he stayed virtually muckless the entire trip, Konrad came in last and was appropriately awarded the exciting and educational card game "Go Fish!"

While camping with my son's Scout Troop we usually share our highs and lows of the weekend with a "Thorn and Rose" session. So did we.

Phil's thorn was falling down. His rose was being able to get back up and collect in the mayor's barrow pit!

Klaus' thorn was packing fish until three in the morning. His rose was the dreamlike expanse of dwarf bald cypress.

Fritz's thorn was his heart-thumping surprise encounter

with a coiled water moccasin. His rose was the beauty of Tate's Hell flora and fauna.

Konrad's thorn was the drunken rednecks spoiling access to the Wakula River. His rose was the ancient beauty of the headwaters of the New River—massive bald cypress towering against a cobalt sky, anchored deep in crisp white sand, and interlaced with ribbons of tea-stained water.

Mary's rose was the aquarium-like view into the beautiful water of McBride Slough. Her thorn was the possibility of seemingly endless stops at every water crossing (an old memory from past trips).

Bryan's thorn—an entire branch of thorns, actually—were his flounderless evening forays. His roses were the multitude of critters he encountered (water moccasin included).

For me, the only thorn I had was the limited amount of time we had to explore. My rose was that no one was eaten, bitten or lost!



### Web Sites of Interest

www.marinelab.fsu.edu  
(FSU Marine Lab)

www.fl-dof.com/state\_forests/tates\_hell.html  
(Tate's Hell State Forest)

www.wildflorida.com/Locke/Locke1/LockeT1.html  
(An Englishman's search for Venus flytrap)

floridafisheries.com/Fishes/sci-name.html  
(Florida's freshwater fishes)

### I Love This Land Indeed

We said our goodbyes and wished each other well for their long drives home. But Phil and I still had another day to play. We returned to Jack Rudloe's Marine Lab, where Jack took us to a remote section of his property that is bordered by a swampy lake. We sampled it from the edge while Jack waded out in his rubber white boots and collected several species of fish. I had always wanted to spend some time with him since reading his book *The Wilderness Coast*. Yes, he assured me, the story of his jumping into the lake to save his pet dog from the death clutch of an alligator is true. (The gator won.)

Phil and I had our Sunday clothes on, so we remained on land and examined Jack's dipnet for critters—pygmy sunfish, killies, and an assortment of water bugs and glass shrimp. I hope to do a proper job of seining this water on another visit. There are so many neat places to here. I love this land indeed.

Phil and I returned to the lab where we packed more fish (a seemingly endless chore), cleaned the house, and gathered our gear for an early morning departure. We stayed up late into the night, sharing and dreaming of past and future fishy experiences. I first met Phil when he attended the Chattanooga NANFA Convention I hosted in 1998, and was happy to be able to spend a lot of time with him on this trip. His knowledge and wit are always welcome. We finally went to sleep and I got my first full night's rest content that all had gone well.

### Answers

1. Pirate perch. 2. Pitcher plant. 3. Oyster.  
4. Gopher tortoise. 5. Cypress tree.

When the morning greeted us, most of our chores were done. Our quest for the day was carnivorous plants. I had come across an interesting and recent account of an Englishman's visit to the region wherein he had noted several locations for carnivorous plants. Phil was intrigued, so we set out in search of them, heading northwest to Sumatra. Fields of pitcher plants stretched before us, and tiny, sticky red-clad sundews lay nearly hidden at the surface. An established and naturalized population of bright green, open and yearning Venus flytraps perched just above a slick veneer of imperceptibly flowing water.

Heading north to Quincy, we crossed a clear, flowing run, one of the steep head-slope flows mentioned in the book *Priceless Florida*. I did a quick U-turn as did Phil. Two young fellas were in the water catching crawdads for bait. I excitedly got my wetsuit on, headed upstream past their shuffling, and saw a dense school of metallic shiners and herds of black-banded darters. Sunfish, bass, *Gambusia*, and a few sand-type shiners also appeared—an excellent refreshing final snorkel for the trip.

I've always enjoyed my visits to Carrabelle and this trip was no exception. If others would like to join me on a trip in early November, let me know. If there's sufficient interest, I will organize another expedition to Tate's Hell. Klaus told me this may have been his favorite fish trip yet and that he would have gladly spent another week in Hell! 🐸

### Native Fish Haiku

The dace swims calmly  
Neither knowing nor caring  
Its name has been changed.

The cavefish trembles.  
Upstairs, thousands of people  
Are flushing toilets.

The extinct darter  
Worries about our future  
Entombed in a jar.

*Christopher Scharpf*