

## Building in the Basin

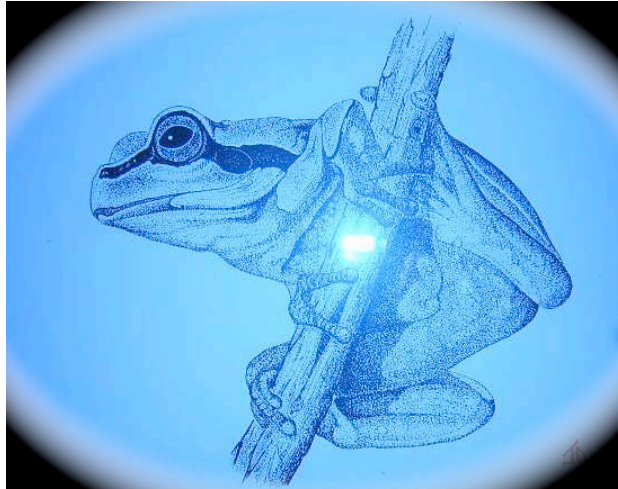


Photo of a Drawing by Jim Duby

6/3/00

As Bill and I unload the kayaks, our minds are full of the problems we both encounter as board members for the Friends of the Wekiva. Last night's meeting was completely devoted to the immediate political battle concerning a new development proposed in Lake County between highways 46 and 46-A where the bear traffic is highest. Once again the emergency of this new development has overwhelmed our long-term mission of education and appreciation of the river and its basin ecosystem.

Today, because of the wretched drought that is choking the earth, the Blackwater Creek is flowing five and a half feet below the bridge and very quickly our attention is turned to the biophysics of the river and the delight of seeing new dimensions of an old familiar path. Immediately the water is deep and brown, the angle of morning light directly in our eyes as we move east. Bill borrows my extra hat, a baseball cap with a Magic logo. We usually make it to the river in the afternoons after a short day's work, but today we are early enough to catch the sun in our eyes and a wide variety of bird chatter along the banks.

As we move down stream, the land is more prominent than usual, wide banks of gradual descent have bright new grasses racing down to the new water level. On the opposite side we see the tree trunks exposed where the current has carved underneath them so that now their roots hang like wigs hideous enough for halloween. It is a lesson in river dynamics to see the land

exposed in this way. Because the water at normal levels is so black with tannin, there is no other way to see into this part of the forest. Here, for instance, is a sabal palm which below the surface took root in the log of a downed tree, growing out of the cut end of a discarded piece of cypress.

Pretty soon Bill is remarking about how cloudy the water seems, and indeed on this bright sunny day you can see, where the creek depths are just a foot or two, quite a bit of tiny particulate matter. We are used to seeing such cloudiness in the water after rain, when much of the minuscule muck gets stirred up. So how can this be happening now without a rainstorm for the last five months?

Even though the water is full of silt, we are also struck by how much of the bottom, in some places, seems to be exposed sand. Down there you can see a lattice-work of wood of every thickness, a history of all that erosion and storm have wrought along these banks. Xylem at the bottom gets covered with sand, creating ridges and mounds at various angles. At one point Bill is sure he sees a large pipe in the sandy bottom, but when we sidle up and poke at it, the foot-round, ten-inch long metal shaft turns out to be the cut end of a palm trunk as smooth as steel.

I start to calculate the depth of muck, on this side and that. Why are there any sandy spots in the river bed? We are doing what geologists get excited about when a highway cut or other natural rift produces a revelation of the strata and the dynamics of Gaian shapes. Drought undresses the river bottom and reveals the distributions and dimensions of muck. I'm wishing I had taken a course in stream ecology.

The first observation that helps me understand the creek's sculpture is that a five-foot bank opposite a three foot elevation produces a sheer drop on the high side and a graduated bar on the other. The depth of water and the amount of overarching tree-cover seem to be the prime factors determining the amount of muck underneath. Some large percentage of the falling leaves will certainly flow down stream until obstructed, as long as the flow is full, but the distance across from bank to bank alters the amount of downstream energy for displacement. Where the riverbed is so wide as to become a flats, with water overflows going immediately into marshes or swamp, the amount of muck increases.

I put my paddle down vertically to test the bottom--how far through the muck will it go before the firm ground of sand (supported here by limestone) is felt? My kayak paddle is about seven to eight feet long and here it goes nearly halfway down, even though there's only a few inches of water over the rich brown soup. It slides very easily through, even though you can see whole leaves lodged in the watery compost. When I pull the paddle out, great long hairy masses stick to the white paddle head. A gentle knock on the gunnel and gravity again takes over, depositing the liquid leaves of yesteryear back into the riverbed. Meanwhile in the water, as if from a small underground nuclear explosion, a huge single cloud of muck mushrooms up to the surface with dozens of little knobs across the cap.

Even though the sand itself is moving down the river to the sea in small increments, we presume the sand bed to be stable. In some puzzling situations, the river narrows and yet is shallow so that one wonders where the volume of water has suddenly gone. In such low and narrow water, we can see that almost none of the water from the swamp is able now to supply runoff to build the river; so we must be experiencing a bottleneck, a place where sand and rock in the bed have built a temporary and partial dam. Here the bottom is almost completely bare and visible to us. In a few instances I actually get grounded when I fail to find the darker side where

the water is a little deeper and a trace of muck is holding to the bottom or roots on that side. In such space we can see patches of algae attached to small mounds, a series of green skullcaps.

This is a world of cream and coffee where the light does not mix much with the darkness. As we float down stream over beds of sand and muck with logs and branches obliquely thrown across this pattern, fish of all sizes flash across our vision when their background is light. Just as the large passing shadow of a raptor overhead startles the lower mammal to escape into the underbrush, the fish, acutely aware of the giant bass and catfish, take quickly to the cover of small crevasses and sticks. They seem to us to be speeding upstream, but in fact they are most often in equilibrium with the slender gravity of the current and their mouths are ever ready to eat. That's economics for you, the big fish eat the little fish that don't take cover. Do the little fish ever dive into the muck to escape?

The big issue the other night at the board meeting was the unusual offer of a well-to-do Lake County land owner to pay the FOWR a large sum of money to help him stop the development of a property adjacent to him. We are a low budget, grass roots organization with enormous clout. Members of our little troop are long-practiced and expert political activists who attend meetings and insist on scientific and ecological data to be a part of the proceedings. We often play against the lawyers of some very big predators--sometimes exotics from some larger waters like Wal-mart--but frequently from local property owners who feel they have the right to the accumulated land value that Florida's population expansion keeps on inflating.

So now some group of investors wants to build 320 units on 489 acres right in the middle of the west-side corridor for Florida black bears and in the most immediate upland area of Rock Springs and a couple of dozen minor springs which create much of the flow for Blackwater Creek. All the studies of Florida hydrology show that the uplands immediately to the west of these springs are responsible for or directly related to those flowcharts. The water district has maps which actually indicate the amount of rainfall that enters the aquifer in one place as opposed to another. We don't want parking lots, roads, and concrete housepads hanging out over the prime recharge territories.

Like the Heathrow project on the east side of the Wekiva, this property has pre-1992 vested interest, it seems, and that allows it to be developed as though it were not inside the crucial Wekiva River Protection Area. If the FOWR finds no irregularity with this grandfathered exclusion from the Protection Act, then the owners will be able to build. No one should be denied their legal right to develop property within safe guidelines, so that when the wetlands are subtracted from those 489 acres, and the legal density of one unit per acre is calculated, they should be allowed 218 units.

However, the question of septic tanks and wells, as opposed to some sort of municipal substation providing sewer and water, is still up for discussion. The Friends will surely oppose any commercialization of the property and lobby for some sort of animal corridor, esp. for the bears, and perhaps another underpass. The key issue of contention is the proposed golf course. One course already built in the basin and permitted to pump twelve million gallons a day has recently been cited for actually pumping seventy-two million. That's close to twice the water coming out of Wekiwa Springs itself. In addition, the problems of pesticides, fertilizers, and retention ponds in this golf course proposal will have to be investigated.

When Bill and I talk about this, I have a strong feeling that we cannot be taking money from any source for a particular endeavor, without compromising our integrity. We cannot with verbal or written contract show up as lobbyists for one landowner against another. Our group is not for hire. As pleasant as it might be to "fight money with money, for a change" (Bill's first reaction), we have to accept all contributions without conditions. I think one part of the public perception of the FOWR may indeed include a hidden notion that we too are big fish (property holders) who are only playing a territorial game of our own--the NIMBY idea. I know only the board members well enough to say, but this is not who the Friends are.

The only way this proposal can work is if this gentleman commits his considerable resources to the long-term protection of the whole Wekiva basin. Our group decides to fight democratically, on a day to day, issue by issue basis. If he wants to double our treasury for the sake of many generations and all central Floridians, not just to stop the project across from his pasture, then welcome aboard. It really doesn't matter because we will fight his battle anyway and without spending much money. The real question this time is whether we need a big-time legal presence to prevail. Sometimes the little fish have a way of winning out, but sometimes they need a good lawyer.

In a democracy, money can talk in the dark recesses of government and commerce. It hides in the backsides and shadows of the sunken logs and it can lash out to swallow unsuspecting prey. This developer will not make a harmless golf-course here, though elegant golf course designs exist with a minimal impact. As it turns out, the folks who want to live this close to the river will have to travel to a safer place for their golf. They will be better served to create a recharge-friendly village with transportation west toward Apopka for their commercial needs. Every new resident who buys into this development is potentially a strong advocate for partial restoration of the habitat.

If all of Lake County follows the development patterns of Orlando and Tampa, the drawdown on Blackwater could dry up all the little springs, creating the equivalent of a permanent drought far worse than today's low waters. Kissengen Spring in Polk County, for example, has been measured since in 1931, flowing as much as 21 cubic feet per second; but over the years the average rate has steadily declined. In the dry season of 1946 it had its first moment of failure and now is completely dry.<sup>1</sup> That isn't going to happen here, however, because everyone is watching. Droughts are great, as long as they are part of the yin and yang of it all.

Downstream Bill has stopped to show me the gnarled undertrunk of a tree that has the shape of a red-shouldered hawk, perched for action. When the rains return to Blackwater, this fellow will be engulfed and have to transform himself into an osprey to catch fish. Bill's imagination is playing this figure in a deep-throated Timucuan fugue and all the way back up stream I can feel his excitement at the discovery. When we get to the bridge, his imagination is rewarded by the sentinel at the top of a sabal palm snag, a live version of the totem we have been carrying in our minds all the way back to port.

---

<sup>1</sup> The phosphate industry uses enormous amounts of water in mining operations and that was the major factor in the decline of the spring flow.