

**SUSTAINING NATURE: Tell Us What You Think**

Welcome to a special edition of *The Balancing Point*.

In this issue, we are trying something a little different. Rather than tell you what we've been up to, we'd like to hear from you. Recent events have served to remind us of the fragility of Florida's ecosystems and our often tumultuous relationship with that environment. The challenges we face are difficult and the answers we seek are not always clear.

We'd like to know how you feel about our role in the natural world. Please join with us in sharing your opinion on our blog. We've added a new section, "[Florida Stewardship](#)," where we encourage you to [respond to our stories](#) below or start your own discussion.

*"For all our well-equipped investigations and classifications, nature remains full of mystery."  
— Thomas Moore, The Re-Enchantment of Everyday Life*



**Collision Zones: What Gives?** by Bob Giguere

When I moved to Florida in my 30s, I was excited to learn about a new environment, a new world that was unfamiliar to me. Here, we are told of many things that can hurt you if you're not careful: venomous snakes, spiders... even mosquitoes. It's enough to scare many "out of the woods" and I'm saddened to think of what those who fear nature miss.



There are places in Florida where you can hear the roaring engines of a thundering superhighway, yet be paddling in a primal swamp or hiking in a pine forest habitat. The collision of place is surprising and sometimes very satisfying. In those times, I'm surprised that the spread of man and technology can and still does co-exist in nature. I've learned to respect the harmony.

However, recent events have certainly reminded me that there are times when a "collision" of these two worlds doesn't yield a very good result. The recent oil spill in the Gulf of Mexico is a testament to what can happen when arrogance supersedes

respect! Another news story I recall is one of a man being hurt by a black bear on his back porch, most likely a bear the man had been feeding — an example of what can happen when stupidity supersedes respect! And other times it is an example of just plain bad luck that can remind you that nature really does rule.

Most recently, a friend of Equinox and a life-long researcher of all things aquatic was attacked by an 11½ foot alligator. He was doing what he's been doing for years, cautiously and respectfully investigating and learning about springs. In an instant, he was the target of another long-time resident of the aquatic world. It was a most unfortunate "collision" of times, both for the alligator and for Pete Butt of Karst Environmental Services. The alligator — by species, a survivor from prehistoric times — knows how to survive in a changing world. Pete, a seasoned and veteran diver is a

researcher with great respect for nature. Pete survived the attack and is recovering from a broken jaw. Our best wishes are with his recovery and his continued efforts to educate our citizens about Florida springs. For me it is quite clear that anyone, no matter their experience or environmental back-ground, can be caught in one of these "collision" zones. We are bound to find some immovable barriers to co-existence that remind us we are not in control. At times they manifest as a "mistake" or an accidental encounter, but each consequence if very real. Something's got to give...

I'm certain Pete Butt, after his injuries heal, will continue to immerse himself in a system that has room for both man and prehistoric creatures. **What about you? Are you afraid of coming face to face with an alligator, a shark, a black bear or diamondback rattle-snake? Or will you relegate your natural experiences to a "controlled" environment, like a zoo or water park? Shall we attempt to control the danger or control the fear? [Visit our blog and tell us what you think.](#)**



**Can We Restore the Magic of our Springs?** by Bill Belleville

There are certain things that we know for sure about freshwater springs in Florida:

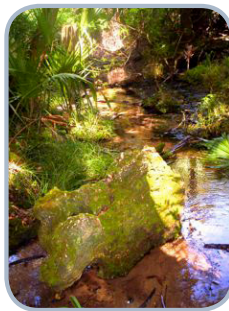
We have more of them than any other region in the world.

Our geologically young terrain with its terrestrial shoals of finely porous sand and its cellar of soft limerock set the stage for this hydrological theater.

Our water cycle, made busy by the warm climate and the surrounding seas, fuels this terrain with heavy rainfall.

The rain, turned mildly acidic by the atmosphere and the detritus of the earth, seeps into the limestone. There, it flows through fissures and bedding planes, enlarging them over time so that they become caverns and caves.

Gradually, the volume of the water flowing through these natural conduits accumulates. Under pressure from its tremendous weight, these underground streams find vulnerable cracks in the rock where they finally surface as springs.



Then, the magic begins. Humans who visit springs — if only from their shores — often come away with the feeling that what they've seen is somehow beyond reality. The waters seem almost electric, as if they pulse with energy and light.

The water flowing from the ground turns into "bowls of liquid light" (Marjorie Stoneman Douglas) and "vast fountains of ether" (William Bartram). The water-filled veins of the aquifer feeding the springs become "caverns measureless to man" (Samuel Taylor Coleridge). The entire tableau of trees and transparent water and sunshine edges into "enchantment" (Marjorie Kinnan Rawlings).

We know some of the science of springs is based on gravity: Uplands recharge these flowing rivers in the limestone. The sheer "hydrostatic" weight of the water pushes it along through the rock, until it finds a vulnerable crack where it can emerge.

A half century ago, a visionary hydrologist by the name of Gerald Parker studied this phenomenon. He named this water storage system the "Floridan Aquifer," and referred to it as Florida's "underground rain barrel."

Oddly, while the nature of Florida has become more familiar, this Aquifer is still largely unknown. We cannot accurately measure it as we would a surface river, bay or reservoir. This is startling, since we rely on this aquifer to fuel our springs — and, to supply clear, clean drinking water for 90 percent of our population.

We do know this: Many of our springs that have been studied show signs of degradation over the last two decades, declining both in magnitude and in water quality.

In East Central Florida, the Wekiva River system is recognized as an ecological treasure. Its economic value to our region is in many millions of dollars. The magic of its 30-plus springs is inestimable.

Although it's one of the best protected rivers in the entire state, the spring-fed Wekiva is only as healthy as its recharge basin. The major springs feeding the river are now degraded because of pollutants that seep into the ground far upstream and upland of where the springs emerge.

As a result of heavy nitrates from lawn fertilizers and septic tanks, both Wekiwa and Rock Springs are now considered "Impaired" by Florida DEP. This means the "caverns measureless to man" are so filled with nitrates near the spring vents that the water emerging actually pollutes the river.

To regain an ecological balance, nitrates in these bowls of liquid light must be reduced by about 80 percent for both springs. **How can this be accomplished? Should strategies to clean up the springs be mandatory? Or should they rely on the ethic of the property owner to act as a good "steward"? [Visit our blog and tell us what you think.](#)**

**A Gulf of Uncertainty** by Stacey Matrazzo

Until last weekend, I had never seen a wild sea turtle crawling on the beach. But as I sat on the Atlantic shore last Friday night, digging my toes into the wet sand and watching the brilliant light of a full moon sparkle on the ocean's surface, I noticed not one, not two, but seven sea turtles emerging from the dark water and lumbering up the beach in search of the perfect place to lay their eggs. They were slow and deliberate, as if inspecting every grain of sand to insure they were in the right place. Unsatisfied with the prospects, six of the turtles turned around halfway up the beach and slowly crept back toward the sea, while the last turtle sought out her sacred space and began to dig her nest.

My joy of watching this scene unfold was overshadowed by the awareness of the disaster taking place in the waters on the other side of our state. I couldn't help but think how lucky these seven turtles were to be here, and not in the Gulf of Mexico.

In an effort to save the hatchlings along the Gulf shores from an imminent death-by-oil, the US Fish and Wildlife service has recently implemented a plan to dig up and relocate 70,000 sea turtle eggs from the Alabama and northwest Florida coasts to Kennedy Space Center on our east coast. The relocated eggs will be carefully stored in temperature-controlled coolers until the turtles hatch, at which time the hatchlings will be released.

This is a valiant undertaking, with the best intentions — and arguably the best of possible consequences for these endangered hatchlings. Back on the Gulf, they might be coated with crude or eat something tainted by oil and die.

Nonetheless, this "relocation" affects the delicate balance of nature these creatures have participated in for millennia. Most scientists believe that female sea turtles return to their natal beach to lay their eggs. Turtles have a kind of homing device that uses the earth's magnetic fields for navigation. So what will an egg's relocation do that homing device? Will the female who was an egg on the west coast but hatched on the east coast know which beach to go to? Will it matter?

Like all reptiles, the sea turtle gender is determined by temperature. The displaced eggs will be stored in temperature-controlled coolers. Still, we may be predetermining the sex of 70,000 turtles. What ratio are we using and what is that based on? Do we now how many males and how many females nature requires for the health of the species?

I'm not naive enough to think that these and other questions have not been considered by

the scientists involved in this mission. But I do know that no matter the science, no matter the statistics or formulas or even the utmost care, these kinds of uncertainties are not for us to decide.



Yet, we've created a world where these decisions are being made by us. Like the hatchling relocation project, they are almost always in response to yet another decision we took upon ourselves to deem safe and necessary and right.

We think we know it all when it comes to the natural world. We think we are in control, yet even when the fallacy of this anthropocentric thinking is thrown in our face, we still believe we have the answers. We react, hastily, and then hope for the best.

Sooner or later, this approach will cease to work for us. But what is the answer? **Do we have the right to make these decisions? If so, on what basis should we be making them? Should it be ecological? Spiritual? Economic? Political? Should we be making the decisions based short term or long term consequences? [Visit our blog and tell us what you think.](#)**