

Volume 27: Number 2 > Summer 2010

The Quarterly Journal of the Florida Native Plant Society

Palmetto



Everglades Tree Islands • *Schizaea pennula* • Pricing the Priceless

Jessica Wheeler

Pricing the Priceless



The Pine Island Sound estuary is fed by the Caloosahatchee River, which funnels fresh water from Lake Okeechobee to Florida’s southwest coast. From above, one can see that the sound is cradled by a ring of delicate barrier islands. Between the barrier islands and the mainland is a constellation of mangrove islands. Each mangrove island is, in turn, dotted with its own constellation of birds – egrets, herons, ibis, pelicans, cormorants, and anhingas. These species nest communally on the islands during the summer, feeding themselves and their young on the bounty of the estuary.

For several summers, I assisted with a study on the nesting success of these birds as part of an internship with J.N. “Ding” Darling National Wildlife Refuge. On one occasion I saw an egret emerge, sodden and helpless, from its egg. I saw the first crack appear and watched the egg move as the tiny bird pecked with amazing force from within. Its beak emerged, and then its head, with streaks of white down clinging damply to its alien-green flesh. I tallied the new hatchling’s presence in my field notebook.

After motoring safely back to the mainland, I entered this tally, among many others, into a database. The database stretched back to the 1990s and displayed in vivid graphs the steady decline of wading and diving birds. The decline seemed direct and unstoppable, caused by overdevelopment of the coasts and the impaired water quality that goes with it. Later in 2005, the estuary was besieged with massive amounts of water from the “management” of Lake Okeechobee, approximately 2.9 billion gallons of nutrient-rich fresh water per day. Then Hurricane Charlie hit. One disaster was man-made, the other natural, but together they pushed the ecosystem to the brink. Fish washed up dead on the beaches. Seagrasses and mangroves died. The wading birds, existing near the top of the ecosystem, were negatively impacted as well. The following year, nest success was incredibly low.

Tourists, who traveled from faraway places to see Sanibel Island’s magnificent birds, expressed sore

disappointment. I was beyond disappointment. I felt betrayed. I had grown up seeing flocks of thousands of egrets, ibis, and roseate spoonbills. I had seen them fish in the murky shallows, their reflections caught in the folds of waves. As disheartening as this decline has been, I feel the estuary is capable of coming back. But not if disturbances continue, day by day, year by year. Like an injured person, the estuary needs time to recuperate before taking on another battle.

A battle like oil.

These estuaries not only tie together Florida’s natural environments – providing a link between the terrestrial forests and the plains of seagrass lying below the surface of the water – they also tie together people often otherwise at odds. Fishermen rely on these delicate habitats as nurseries for important commercial and recreational fish species. Together, these species bring in over \$6.5 billion every year. Conservationists realize estuaries’ value as some of the few remaining nesting areas for threatened wading and diving birds. Those who inhabit the coast value the importance of mangroves and other marshlands in stabilizing the shifting lands of low-lying south Florida. Tourists and locals alike adore the beauty, tranquility, and feeling of awe one gets upon entering a mangrove tunnel or strolling down a pristine beach. And those in the tourist industry know good money when they see it – over \$25 billion a year in coastal tourism.

For these reasons, I was shocked to learn that Florida lawmakers were considering oil exploration

near one of the most delicate environments on earth, a place where slight changes in salinity, water clarity, and nutrient and pollution levels can throw off the balance of the ecosystem.

I want to know who can look at the sunny expanse of Florida and see potential for oil exploration, rather than the refinement of solar energy. I want to know who thinks jobs will be created at a time when alternative energy sources are America's only hope for future energy independence. We need to admit that the measly amount of oil Florida could contribute would do nothing to lower the price of gas at the pumps. And I want to know who is funding the lobbying that says otherwise.

Beyond this, I want to see Florida legislators stand up to big money. After failing to fight the sugar industry's destructive habits, even with the Everglades at stake, I need to see lawmakers stand up for Florida's coasts.

While we're at it, why don't we talk about costs?

I want my legislators to tell me how much money Florida would make by allowing oil drilling in our pristine waters. Then tell me if they've accounted the cost, both in capital and in ecological damage, of dealing with an oil spill – the cost of cleaning up the oil, the dead birds and fish. Have they accounted for the cost of dune restoration? Seagrass restoration? Oyster reef restoration? Is the attempt to recreate fragile coastal ecosystems included in the estimation of job creation? What about the attempt to reinvigorate confidence in the safety of oil rigs during hurricanes? Could money bring back the tourist industry?

The bill passed by the House would allow oil drilling to occur three to ten miles off the Gulf coast of Florida. Because oil spreads from a spill at an astonishing rate, approximately 197 feet per second, it wouldn't take long for the oil to reach the estuaries, marshes, and beaches. And we cannot pretend an oil spill wouldn't occur in a place that is famous for its hurricane activity. The effects would be devastating. An oil spill that occurred near the entrance to the Panama Canal in 1986 has been well documented. First, bands of dead mangroves appeared along the coast – their roots, along with the oysters, barnacles, and sponges that live on them, were covered with a suffocating film of oil. Transplanted mangrove seedlings were not able to survive in these polluted areas. Seagrasses in intertidal zones were killed through direct exposure to the oil at low tides. Other seagrass species died off slowly from subsequent algal blooms. Here in Florida, that would mean manatees would have nowhere to graze. Shrimp were killed by the Panama Canal spill and their diminished presence

reverberated through the entire food chain. Moreover, once oil enters an estuary, it takes decades for it to be removed.

It doesn't take an actual spill for pollutants to find their way to the water and reach the coast. During normal operation, oil rigs dump toxic drilling fluid, heavy metals, and carcinogens into the oceans, as well as pollute the air much like city traffic.

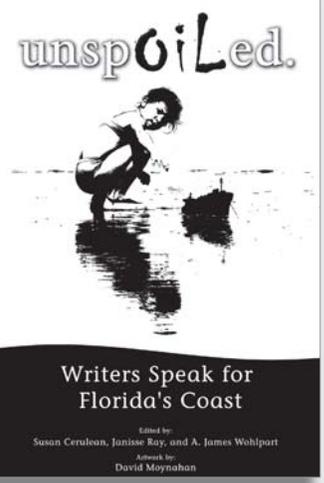
These toxins will not only affect sea life – they will impact those of us who live on, play in, and eat from the Gulf. Should we, as Floridians, believe that the possible gain of oil exploration will outweigh these negative impacts?

I've watched the cycle of life and death in the estuaries. I've seen the estuary nearly destroyed and then, amazingly, recover. I've seen old and young alike awestruck by a fiddler crab clinging to the aerial roots of a mangrove. I've seen thousands of people flock to estuary refuges for one glimpse of the abundance of birds and wildlife thriving there. I've watched a manatee calf follow her meandering mother through the beds of healthy seagrass. I've watched dolphins jump for sheer joy. I've seen the exuberant face of a child after catching her first sheepshead.

Ding Darling National Wildlife Refuge fell to pieces after the discharged water from Lake Okeechobee and the lashing winds of Hurricane Charlie. With time, patience, and the loving dedication of Florida's citizens, the estuary is almost back. Maybe we'll never again see the abundance of birds and wildlife documented by the pioneers of Florida; maybe the fisheries will always be a shadow of what they once were. But, if we take care now, maybe we can preserve them

as they are today. Maybe, if we fight big issues like coastal development and oil, we can hold on to these idyllic scenes.

Florida's coasts are not a place. They are a way of life. They symbolize both natural and man-made prosperity. I know I speak for millions when I say that Florida is who I am. Taking advantage of Florida's precious coasts for the sake of temporary monetary gain destroys the people who love this state for what it is – paradise.



unspoiled.

Writers Speak for Florida's Coast

Edited by Susan Cerulean, Janisse Ray, and A. James Wohlpart
Foreword by David Moynahan

Pricing the Priceless is excerpted from the new book Unspoiled – Writers Speak for Florida's Coast, edited by Susan Cerulean, Janisse Ray, and A. James Wohlpart.

To order the book, visit www.Unspoiledbook.com



About the Author

Jessica Wheeler recently graduated from New College of Florida with a degree in ecology. She is currently at Archbold Biological Station in central Florida, where she studies an endangered scrub mint, chases cows, and sings songs about Florida. Her writing career is just beginning.



Palmetto

The purpose of the Florida Native Plant Society

is to conserve, preserve, and restore the native plants and native plant communities of Florida.

Official definition of native plant:

For most purposes, the phrase Florida native plant refers to those species occurring within the state boundaries prior to European contact, according to the best available scientific and historical documentation. More specifically, it includes those species understood as indigenous, occurring in natural associations in habitats that existed prior to significant human impacts and alterations of the landscape.

For more Information:

<http://fnps.org>

To become a member, contact your local Chapter Representative, call, write, or e-mail FNPS, or join online at www.fnps.org/join

Follow FNPS online:

Blog: <http://fnpsblog.blogspot.com/>

Facebook: www.facebook.com/FNPSfans

Twitter: twitter.com/FNPSonline

LinkedIn: Groups, Florida Native Plant Society



The Palmetto

(ISSN 0276-4164) Copyright 2014, Florida Native Plant Society, all rights reserved. No part of the contents of this magazine may be reproduced by any means without written consent of the editor. *The Palmetto* is published four times a year by the Florida Native Plant Society (FNPS) as a benefit to members. The observations and opinions expressed in attributed columns and articles are those of the respective authors and should not be interpreted as representing the official views of the Florida Native Plant Society or the editor, except where otherwise stated.

Editorial Content

We welcome articles on native plant species and related conservation topics, as well as high-quality botanical illustrations and photographs. Contact the editor for guidelines, deadlines and other information.

Editor: Marjorie Shropshire, Visual Key Creative, Inc. palmetto@fnps.org • (772) 285-4286 • 1876 NW Fork Road, Stuart, FL 34994