

Friends of Perdido Bay

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TIDINGS

The Newsletter of Friends of Perdido Bay

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Thank you

Our members are the soul of Friends of Perdido Bay. Your continual support for our enviornmental group has allowed us to sample and continue to monitor our bay. I know this summer the bay has looked terrible. It has been turbid and pea green all summer. You certainly do not want to swim in the bay as bad as it looks. It is really too bad. I was looking at some family photos from years ago when our family spent their summers in the bay – swimming, fishing and boating. I want to believe those days should return if Perdido Bay was cleaned up. People speak of family values. Perdido Bay is part of the family values narrative.

Whatever happened to Heterosigma?

Who is *Heterosigma*? No, this is not some beautiful Swedish model. *Heterosigma* was a one-celled type of phytoplankton which was, according to Dr. Livingston, responsible for killing life in Perdido Bay. In the late 1990's and early 2000's, Dr. Livingston reported that blooms of this one celled algae in Perdido Bay caused death to life in the bay. Of course we never saw massive fish kills or other signs of toxicity, but it was this lowly toxic algae which bloomed and killed our bay. Dr. Livingston attributed the out break of *Heterosigma* blooms to overnutrification of the waters. There were too many

nutrients. If we could just control nutrients, we could control outbreaks of this toxic algae and hence our bay would come back to life. Well, as we know today, this narrative was fantasy. Nutrients are no longer a problem in Perdido Bay (maybe), but the bay is still dead.

For the past year, Friends of Perdido Bay has been doing plankton analysis. We send water samples off from the upper bay and the boat ramp in Lillian, AL to a laboratory which identifies and counts the phytoplankton. We have yet to see any sign of *Heterosigma*. There are other problematic phytoplankton, like blue-green algae, which are the predominant phytoplankton in the upper bay, but no *Heterosigma*. International Paper also has done phytoplankton analysis since 2012. IP's data never revealed any *Heterosigma* presence either. You would think Dr. Livingston might have dreamed up this toxic algae. But I know that he didn't. Why? I know the person who identified this algae for him. *Heterosigma* was real! But it was only here when Dr. Livingston was sampling!

Perdido Bay was not the only place where a toxic algae appeared and then seemed to vanish. In the Chesapeake Bay and in some of the estuaries along the North Carolina coast, a bloom of toxic algae called *Pfiesteria* in the late 1990's, caused massive fish kills. This toxic algae was so notorious that it was even thought to cause memory loss in humans. There was a lot of media coverage in the late 1990's and two books and a documentary were put out about this algae. Also, because the outbreak occurred close to Washington, D.C., Congress allocated a large amount of money for studies of "hazardous algae blooms" (HAB's). Over nutrification of the estuaries was blamed for outbreaks of toxic algae. But similar to *Heterosigma*, *Pfiesteria* disappeared. The scientist who first described this toxic algae, came out with a paper in 2012 and said that hurricanes in the area had caused the dormant cysts of the algae *Pfiesteria* to be washed out of the sediments and into unfavorable environments. I used to contact a researcher in the Chesapeake Bay area who told me that *Pfiesteria* had not appeared for nearly 20 years. He said many people were wondering if *Pfiesteria* was not a hoax. Hoax or no hoax, these outbreaks of toxic algae led to more strict nutrient standards for estuarine waters, including Perdido Bay.

In 2010 to 2012, the Florida DEP enacted site specific nutrient standards for each body of water in Florida which are part of the Florida Administrative Code. Perdido Bay, especially upper Perdido Bay, has some of the highest allowable levels of nutrients in the state. Total nitrogen can not

exceed 1.27 mg/L; Total phosphorus can not exceed 0.102 mg/L and chlorophyll a must be below 11.5 ug/L. These levels were established by the testimony of Dr. Livingston who said these were the levels present in the “good years” (1988 – 1990) in his studies on Perdido Bay.

Our most recent sampling of nutrients in upper Perdido Bay on September 1, 2026 had the following levels: Total nitrogen – 0.57 mg/L; Total phosphorus – 0.049 mg/L; and chlorophyll a – 7.94 ug/L. The most recent nutrient results are well below the established limits for upper Perdio Bay. However the total coliform bacteria were very high - >2400 colonies/100 ml. Best not to swim in upper Perdido Bay.

What is my explanation for why *Heterosigma* showed up in Perdido Bay? Get ready for another conspiracy theory. Dr. Livingston did indeed find them. I believe someone put them here. No clue as to who that “someone” was.

A serious situation

As you drive from Pensacola to Tallahassee on I-10, it is easy to see what the predominant crop of this area is – pine trees. Growing pine trees for both paper pulp and lumber, seemed to have replaced cotton as the crop of the South. Pine trees, mainly loblolly and slash pine, are fast growing, don’t require a lot of maintenance, and grow in a variety of habitats (wetlands and uplands). The Department of Agriculture used to recomend planting pine trees instead of leaving fields fallow. Pine planations also made good habitat for wildlife. So maintaining a pine planation was a good potential investment and hunting area, not to mention carbon capture investment. Real estate always goes up in value, and is a good way to hedge inflation. Maybe, but recent economic news may cause some angst in some areas – especially in the Pensacola area which is heavily involved in growing pine trees.

A recent story in the Wall Street Journal reported that prices for pulpwood are at 40 year lows. In some southern areas you can not give pine trees away. If you can find someone to harvest your trees, you have to pay them and then you may not be able to sell them. It is bad. Then, mills like International Paper in Pensacola which convert pine chips to pulp, are not able to sell the pulp for boxes. What happened? The Wall Street Journal article points to three factors. Pulp from recycled boxes, cheap imported pulp (probably from Brazil), and less demand for boxes due to “right size box fitting” by on-line retailers is cutting demand for virgin pulp. This is putting serious

economic strain both on the timber property values locally, pine tree growers, and industries, like IP, which makes virgin pulp for boxes.

Does this mean we are going to see more timber properties sold for development and data centers? I hope not, but with timber growing becoming less profitable locally, people are going to reassess their ownership of long-term timber investment.

As for paper manufacturing like the IP mill in Pensacola, that is another tough problem. I have watched American manufacturing decline for a long time, first in Pittsburgh, PA where I was raised and now in Pensacola. We have watched (and complained loudly) as the paper industry has used our bay to dump their wastes instead of finding better ways to dispose of their waste products. I am sure they would say, they are doing the best they can or rather the best which their investors will allow them to do. And that is my point. In our capitalistic system, investors and shareholders are the ones which make their money first. Insufficient funds are allocated to industries to modernize their factories by the shareholders, especially if the shareholders are institutional investors. Over 80% of IP's owners are institutional investors who use IP to make their own bottom lines look good. And IP obliges. IP pays a yearly dividend of 5% even when the company is losing money. Of course eventually the stock sinks and, well, that isn't too bad either because losses are always useful for tax purposes. Is this a way to encourage modernization and innovation in our manufacturing centers? No

End results of this type of business practice – old mills which can not compete against new more efficient mills built in China. And who pays for this lack of progress? Local communities, and workers. Who wins? Wall Street.

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Renewal

Membership is \$30.00 per **year per voting member**. To join or renew, fill out the coupon to the right and mail with your check to the address on the front.

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