



The BFA January 2017 NEWSLETTER

Hope Everyone finds themselves and their loved ones doing well as we bring in this New Year.

Please mark your calendar for the next General Membership Meeting

Wednesday, 1 February 2017

This will be an Eating Meeting with a Guest Speaker! Doors open at 5:30 PM. Dinner will be served at 6:00 PM. Dinner will be provided by the Metro Deli & BBQ and will include several vegan options for our vegan friends.

Cost \$10.00*/person (*Please note the slight price increase)

1615 East LaRua Street, Pensacola

Please join us in welcoming Alexis Janosik, PhD, currently an assistant professor in the Biology Department at UWF. Alexis received her PhD from Auburn University after conducting molecular and morphological research on starfish, Odontasteridae (Asteroidea). Her research interests and work have taken her from the Antarctic to the Bahamas, where she has contributed to a genetic library currently underway throughout the world to 'bar code' every genus and species known. Come learn how her interests are helping researchers to better understand which species may be present/absent from different waterbodies, including many in our area.

Her presentation is entitled: **A tale of two fish: using environmental DNA (eDNA) for detection.**

Our BFA Membership is a multi-generational organization, with our youngest member being four years of age and our oldest member being 96 - as of last week. Loosely organized in the mid 1960s, the BFA officially formed in Jan of 1970 (the same year of the first Earth Day celebration, 22 April - and the origin of the US Environmental Protection Agency in Nov).

Why was the group formed? Because, the original membership were alarmed at the demise of area waters, specifically the loss of habitat. Many of the founding members grew up in this area and became troubled at the loss of the seagrasses; they remembered a time when the grasses (underwater and along the shore) were the places where you crabbed, shrimped or fished. Back then you didn't have to fish long to feed a family of ten –that was in the timeframe of the 1930's, 40's, 50's, and into the early 60's. And like everything else, things began to change. The BFA Members who grew up in this area were never hungry. Unlike the rest of the nation during the great depression and the dust bowl era, most folks in this area just had to make their way to a creek, bayou, river or bay to push a net or cast bait and fish. So, what happened?

It started off slow: a fish kill here; someone cleared their land of trees and when the area received a rain event - sediment flowed into a creek, a bayou, and eventually the bay. Today the runoff is stormwater runoff carrying a host of chemicals along with sediments that smother those underwater habitats, namely grasses. Many early industries – especially water dependent industry - loved our NW FL landscape in part because of the water and moved their businesses to our coastal areas. Once established these plants freely discharged their effluent into our air, surface waters – some even injected their discharge deep into the aquifer – but that came later.

The seagrasses began to die, so did the shrimp. The big mullet spawns stopped. Blue crabs weren't as plentiful without the grasses to hide in. The big schools of menhaden died. Property values along bayous began to fall. The BFA began to measure fish kills in square miles. The big flocks of ducks stopped coming to the area. The shorebirds were in declines. The brown pelican flew away – why stick around if there's nothing to eat?

Today, the brown pelican is making a comeback, so are the ospreys and even an occasional eagle but not much else has changed...we still don't have the habitat, which means we won't have the shrimp or crabs and that means we won't have the fish either. We still invite industry to move into our areas, especially when they promise elected officials lots of jobs and an uptick in economic development. To lure them here we offer tax breaks or tax deferments and look the other way when they harm the environment. It seems to be the way our part of the state conducts business, always had been – so why change now?

We didn't know then, what we know now. The mantra of those earlier days was: 'The solution to pollution was dilution'. Many in my generation grew up seeing that message on billboards, television commercials, and magazines. That's what we were taught in school, but that message has changed as we've gathered more and more information. Today the science outlines a very different story.

Today we know so much more about the weather (weather patterns), geography, about highly erodible sandy soils and that our local area receives 65" rain annually. Federal, state, county and cities have spent a fortune on the development of Best Management Practices (BMPs) to protect our waterways but are often the first to forget to implement them locally. What can we do as a coastal community? We can start by retreating from creeks, streams, rivers and bays. We can request that our elected officials implement natural buffers around these sensitive areas (wetlands and riparian zones) that accumulate and hold water. These natural buffers are held together by root systems from plants that have evolved over centuries to live in these extreme conditions. At times of the year, they are wet, during droughts they are dry, and sometimes during tropical weather they are underwater. Mother Nature can be considered the ultimate landscape designer. The right species in the right place!

Our area is rich in natural resources and biodiversity. Scientifically based, environmentally sustainable landscape practices will enhance and maintain our unique natural beauty. To learn more about native plants, consider attending one of the many Master Naturalist programs offered through UF and the county extension agencies. For more information please visit: <http://www.masternaturalist.ifas.ufl.edu/>. Another option would be to join one of the local field trips sponsored by the Longleaf Chapter of the Florida Native Plant Society. Contact fnps.longleaf.pine@gmail.com to learn about the scheduled events. Interested in resources, visit their website for literature and programs <http://www.fnps.org/>.

During heavy rain events, everything on the landscape makes its way to the lowest point in the landscape as stormwater runoff. Fifty years of stormwater runoff have flowed into our bayous and out into our bays – carrying with it a toxic mixture of complex chemicals that changed our 'Gin clear' waters from crystal clear where sunlight could reach the bottom to dark and turbid waters. That slurry of stormwater and sediment, peppered with lighter and finer silts and clays have either stayed in suspension with wind, wave and tidal energy or settled out as a dark mud with a consistency of brownie batter on the bottom of our larger basins. That layer of sludge strips oxygen out of the lower water column, behaving similarly in our bays as the Dead Zone behaves in the Gulf of Mexico.

For the past 25 years we've also known that diverting polluted runoff into a public body of water is wrong, in fact it's illegal. And yet with every new road project or widening of an existing road – we are observing more runoff and more sedimentation. The FL Dept of Transportation (FDOT) is currently working on a dozen or more projects in our area. Engineers and their subcontractors are so fixated on their schedule and meeting safety and project deadlines, that often the basic 'housekeeping' aspect of their project is overlooked. Where are those BMPs?

To make matters worse, the development of a new road (such as the new Escambia County Beltway discussed in the fall 2016 BFA Newsletter) always invites new development. New Development is not always 'sited or placed' in the 'highest and driest' location. And developers

rarely buy expensive quality land to develop, opting for less expensive wetlands or riparian zones, and then shoe horning up to 10 homes an acre on unsuitable parcels. Often, by the time the public experiences problems the developers have taken their profits and are long gone.

For example, North Escambia (NorthEscambia.com), the on-line publication, published an article 8 Dec 2016, about how Escambia County is proposing to repair flooding issues in the Eleven Mile Watershed. Step one is to purchase 44 homes which were developed in the riparian zone back in 1993 – demolish the homes and widen the creek. Homes in that area received up to 50 inches of water when the creek jumped its banks during the April 2014 flood. Those homes are all on septic systems, so besides ruining their personal property and contents, their septic tanks overflowed into the waterways (Eleven Mile Creek and upper Perdido Bay). Two and a half years later, Escambia County's request for Federal Emergency Management Agency (FEMA) Money - funded by tax payers to purchase of these homes may start. Many of the folks have spent the last 2+ years rebuilding their lives...what to do? To read more, go to <http://www.northescambia.com/2016/12/flood-planescambia-county-looks-to-purchase-demolish-bristol-park-homes>

Flood Plan:Escambia County Looks To Purchase, Demolish Bristol Park Homes

December 8, 2016



Escambia County is considering the purchase of dozens of homes in the Bristol Park and Ashbury Hills neighborhoods. The homes would then be demolished to widen and improve waterflow in a creek to alleviate flooding.

While Escambia County is trying to address the stormwater issues around this watershed, the highly engineered stormwater improvements currently being installed on Hwy 97 and Hwy 297A are not improving the situation at all. Open vegetated berms and swales, which according to long time residents did a good job holding water and allowing it to percolate into the ground slowly - are being replaced by closed cement culverts which are not being maintained – instead the culverts are becoming blocked – and causing more flooding.

At the 19 Jan 2017 Escambia County Open Forum, <https://myescambia.com/ectv>, homeowners mentioned cleaning out the creek to allow more flow. In actuality, the creek is trying to adapt to all the changes (more development = additional stormwater inputs) in landscape by repairing itself. The condition that is changing at alarming speed is the push for more development in this stressed and impaired watershed. Each acre of open land that is converted into 2, 4, 8 or 10 homes will be contributing to flood issues downstream because of the additional impervious surfaces.

Ironically, while the same county is trying to develop the area for new homes and businesses, little effort has been made towards getting the older communities off of septic tanks. Several significant rain events (14", 4.6" & 3.8") have been recorded since this year began. The current Escambia Board of County Commissioners is paying the price for the decisions made by the former county commissioners in the mid 1990s. Let's hope they do not repeat the mistakes from the past by allowing more development in low lying areas. In developing these watersheds, no one has given any thought to the stormwater issues. Let's make that a priority!

Escambia County has been developing a new growth plan for the western half of the county. Much of this plan is anchored upon the new Navy Federal Credit Union and the 10,000 jobs promised. Most of this growth will occur in the Perdido Watershed. Once again, I will repeat the issue: **In developing these watersheds, no one has given any thought to the stormwater issues.** To review the PowerPoint Presentation plan developed by MSCW consulting firm that specializes in large scale planning, please visit the BFA Website (address below).

Which brings me back to the role and responsibility of the Bream Fishermen Association; our organization has been collecting water quality information from our area creeks, rivers, bayous and bays for the last 50 years. The data has undergone rigorous Quality Assurance and Quality Control measures to assure that state standards are met. This important and rich data set has also been used to develop new criteria for our region and to identify areas which are impaired. That makes our monthly water quality monitoring work really important. Where is this data? Currently it resides in the FDEP and USEPA Storet Portal. In the future, the BFA will be developing a report card system which will inform the public about the condition of the waters we sample. As BFA Members, your time and financial support contribute to this program, and that makes us a really special group.

If you haven't paid your dues, please do so now. If you are interested in volunteering your time to learn how to sample and participate in our program, please contact me at 850.384.6696 or come to one of our meetings to learn more about our programs.

We began this newsletter by reminding our younger members of habitat loss, and how that impacted our area waters and livelihood. Even back in the 1970s & 80s, the health of our environmental and the local economy were woven together. The 2010 oil spill reminded us again. The research arm FWRI (Fish & Wildlife Research Institute) of the FWC (FL Fish and Wildlife Conservation Commission, which was the previous FL Fish & Game) received a grant to

conduct a large scale, northern Gulf of Mexico Regional study on what are the Roadblocks to Seagrass Recovery – with the understanding that the causes that made them die off may not be the same factors that are keeping them from returning. In depth studies were conducted during 2016 in the Perdido, Pensacola, Santa Rosa Sound, Choctawhatchee, St. Andrew, St. Joe, Apalachee and Suwannee Sound. Seagrass researchers from Dauphin Island Sea Lab, UWF Center for Diagnostics & Bioremediation, Choctawhatchee Basin Alliance*, St Andrew RMA-Baywatch* (*citizen monitoring groups) and FL State University Coastal & Marine Laboratory worked and studied regional water quality, seagrass species, abundance and growth, success in transplanting, sediment composition and toxicity (sulfide), grazing studies, physical damage (propeller scarring) and the ability of light to penetrate to various water depths.

Aspects of this research may point to the factors inhibiting light from penetrating the bottom of these various basins (specifically the wave lengths associated with growth, duration, intensity, and water cloudiness). This ground truthing data can then hind-cast the 14 years of satellite data that various agencies, NASA, NOAA, the USEPA and State have collected. This type of data calibration can now be added to new models to predict future conditions.

Earlier this month, the researchers who participated in the seagrass study gathered to discuss their findings. Several interesting observations bubbled to the top. First, no two bays or estuaries are the same including their shape, depth, quality and quantity of their freshwater influence, the condition of current surrounding infrastructure (septic vs sewer), hardening shorelines versus natural, high/low development, and surface fetch. In other words, 'One size does not fit all'. The next observation may be the easiest to fix and was identified as the low hanging fruit. Prop scarring rates among the NW FL estuaries was alarming; Besides causing a swatch of bare sand in shallow water which fragments the important and slow growing root mass; grounding boats in shallow waters isn't good for boats, motors or propeller. Seagrasses near Ono Island have been cordoned off with a ring of buoys and increased seagrasses have been observed. Seagrasses are very slow growing and much like their terrestrial cousins, seagrasses have dormant and growing seasons.

The monumental task of interpreting and writing up the studies will continue. In addition, this spring the 20 researchers who participated in the study will be working with their elected officials and within their communities and watersheds to adopt a similar buoy system to alert boaters of shallow waters. Towards the end of spring and before the summer kick off, a meeting of the seagrass study and the local findings will be held. The date has not been selected yet, but we will keep you informed. For more on the study, please visit:

<http://myfwc.com/research/habitat/seagrasses/projects/>

Many of the current studies are being funded from monies received from the BP Oil Spill in 2010, including the previously mentioned seagrass study. The Northwest Florida Water Management District also received a grant to update all of the individual watershed plans. These plans are under the Surface Water Improvement and Management (SWIM) Program. The Perdido River and Bay SWIM Meeting was held 10 Jan 2017, while the Pensacola Bay

System was held 11 Jan 2017. Both draft plans and supporting documents and presentations can be found at <http://www.nwfwater.com/Water-Resources/SWIM/SWIM-Plan-Updates>. The purpose of these documents is to provide an overview and a plan to help direct future funding and development. Your feedback and concerns are being solicited by these agencies.

That good news, right...The good folks at Monterey Shores living on Indian Bayou in Santa Rosa County are getting an awful lot of run around from the same agencies who are supposed to be protecting the environment. As is often the case, the right hand doesn't know what the left hand is doing.

In this case, a road built ~50 years ago fragmented a wetland bayou system. That was an accident, and honestly we didn't understand the hydrology of these wetland systems. The map below is a 1955 aerial of Mulatto Bayou (next to the 55 in the upper left hand corner) and Indian Bayou in the lower mid right portion of the map. Today in 2016 and 2017 a road widening project is well underway. Routine maintenance included clearing grasses - which were acting like a filter to trap sediments. This grass clearing coupled our regular rains have resulted in a big mess. We didn't know then what we know now....but for heaven's sake, why aren't we applying some of our new technology to the environment?



We are still building bridges that do not span the wetlands or the riparian zones; many vegetated swales which act to hold stormwater and take up nutrients are being filled in for additional lanes with many road projects. All these new roads will eventually lead to more development. That is encouraging to counties wishing to increase their tax base, but it is the responsibility for these counties to have smart sustainable development. When counties allow any type of development in low lying areas, we can expect more of what the residents in Bristol Park experienced in the April 2014 Flood. In the end there is a lot of heart ache when one

looses everything to a hurricane or flood event – those events take an emotional toll, not to mention the negative impact to the area creeks and bays.

Why can't we learn from our past mistakes? The following pictures illustrate some of the items I've touched upon in this newsletter.

Q: What don't we have seagrasses coming back to our area waters?



A-1: Because of continual sedimentation pulses which contribute to turbidity in the water column and keep sunlight from penetrating to the bottom where grasses live.



A-2: Aerial photo of 2014 flooding event showing turbidity in the East Bay and Escambia Bay Systems. Wind, waves and tidal action can keep sediments in suspension for weeks, thus shading out important light required by seagrasses to grow.

As you drive around in your daily activities you are bound to encounter some level of road work underway. The FL Dept of Transportation has a number of projects on-going in our communities - take a look at the work area. Does it have silt fencing installed? Are there hay bales or coir fiber logs positioned near culverts to keep sediments from entering the stormwater system and or surface waters? If not, make a note of the location and if possible take a picture. We are in the process of compiling a list of these oversights and hope to start addressing them. After all, we all want to see our seagrasses make a strong recovery.

Thanks for taking the time to read this lengthy newsletter. For those of you who wish to become more informed or active, I'm listing several meetings which may be of interest to you.

Alabama Coastal Habitats & Birds	Thursday, 26 Jan	7:00-8:30 PM	Baroco Science Center, Room 21 on the main campus of Pensacola State College	Please visit the website at: http://fmwaudubon.org/about-us/
Carpenter Creek Clean-up	Saturday, 28 Jan	10:00 -2:00 PM	Publix Parking Lot on 9 th Ave & Bayou Blvd	Contact : Laurie Murphy at (850) 292-5960
Environmental Quality of the Pensacola Bay System	Tuesday, 31 Jan	10:00-11:00 AM	West Florida Regional Planning Council 4081 East Olive Road, Suite A Pensacola	Contact: Katie Wilhelm 850-332-7976 ext. 280 for more information

Lastly, we hope to see you at our quarterly meeting – location and times on the front of this newsletter.

BFA puts out a quarterly newsletter and hosts 4 general membership meetings a year.

Thank you for your interest in our waters. Take a look at what the community around San Diego did when they encountered pollution in their area creeks. Keep in mind, folks living on the west coast value water much more because there is so precious little of it.

<http://www.voiceofsandiego.org/topics/news/san-diego-explained-21/>

Let's make our community better by protecting all of our resources.

Barbara Albrecht, President of the Bream Fishermen Association

The Bream Fishermen Association is a not-for-profit organization dedicated to the promotion of the conservation responsibilities as well as the recreational enjoyment of fishermen, hunters, campers and related outdoorsmen.

It is the objective of the BFA to support, develop, and implement programs that will:

- 1) Improve the quality of our environment;
- 2) Protect and maintain our present wilderness type lakes, rivers, swamps, marshes, bays, forests, and beaches in their natural undeveloped state; and
- 3) Advance the causes of plant, marine, and wildlife preservation.

Membership is open to all individuals who support these objectives. Please join the BFA by sending us your contact information (name, mailing address, phone, and email) be sure to notify us if you prefer to receive notices and announcements by mail or email, and \$10 annual dues to our mailing address:

Bream Fishermen Association

1203 N. 16th Ave, Pensacola, FL 32503
