



The BFA July 2018 NEWSLETTER

Hope everyone has been enjoying the Summer! It has been Africa Hot!!

Please mark your calendar for the next General Membership Meeting

Wednesday, 1 August 2018

This will be an Eating Meeting with Guest Speakers! Two of them! Doors open at 5:30 PM.
Dinner will be provided by the Apple Market and consist of pulled pork,
roasted vegetables & salad options.

Dinner Cost \$10.00/person
1615 East LaRua Street, Pensacola

Please join us in welcoming Kate and Jordan Holcomb as they present: **“Ecology of mussels and fishes in Florida Panhandle rivers”**. Jordan Holcomb is a freshwater mussel research biologist with the Florida Fish and Wildlife Conservation Commission (FWC). His research has focused on the biology, ecology, and life history of freshwater mussels throughout Florida. Prior to coming to work for FWC, Jordan completed undergraduate and master’s research at Appalachian State University. His master’s thesis investigated the effects of small dams on freshwater fish communities. In his spare time, Jordan likes to fish and hunt across Florida and other states.

Kate Holcomb is a freshwater fisheries biologist with the FWC. She spends most of her time monitoring fish communities Northwest Florida rivers and estimating the population size of imperiled freshwater fishes. She has also conducted angler surveys on the Escambia river and conducted studies to identify hosts (freshwater fish) for freshwater mussels. Kate completed her master’s degree at the University of Florida and her undergraduate degree at Lake Superior State University (Sault Ste. Marie, Michigan).

Chances are you've noticed that our area is rapidly changing. Downtown has become a vibrant city which is growing upward, and very much in-line with low impact development strategies. The new 3-mile bridge is on the fast track – who wouldn't be with a \$15M incentive to get the eastbound section of the bridge finished by January 2019?! Communities are being revitalized; new folks are suddenly moving here from other cities and states. The Navy Federal Credit Union Campus is immense, as is the new Beulah Middle School and the multiple housing developments popping up like mushrooms after a heavy rain. The landscape, she is changing!

Most of these changes are the fruits of the labor that was invested by area chambers of commerce, city and county staff, developers, and elected officials a decade(s) ago. Downtown would not be hopping every night of the week and packed on weekends if 'Old Stinky' the ECUA waste water treatment plant was still located downtown. Thank you, Hurricane Ivan!

The trajectories of landscape change, that is, the way people have altered the land, the water, and the biotic resources of the panhandle of Florida over the last 150 years have been expeditious, to say the least. The population of Florida was just over 550,000 in 1900 (US Census). At that time, the state had 47 counties, of which St Lucia county was the smallest at 4,075 and Hillsboro County the most populous at 78,374. [Pensacola had 17,747* (*slave population not included)]. Interestingly, rural areas referred to those cities and towns with populations below 2,500. *The term suburban didn't even exist*, whereas urban territories consisted of areas with populations over 2,500 inhabitants of which there were 23 (and only Hillsboro had more than 50K). Today, the annual population of Florida is 21.34 million (www.worldpopulationreview.com) and we receive roughly 110 million tourist visitors. That's a lot of pressure on our natural resources.

How might human activities alter the landscape over the next 50 years, considering a range of plausible policy options and land use changes? Growth, particularly sustainable growth which balances our communities, cultures, and our way of life – past and present - is constantly evolving. Our organization sees this first hand with our monthly water quality monitoring program, in which we visit the same sites every quarter, rotating through 48 stations. Traffic has increased three-fold, invasive plant species now line every creek that we visit, every road behaves like a conduit carrying sediment and stormwater right into the creeks (some FDOT engineers refer to creeks as stormwater conveyances), and most dramatic are the vast properties being clear-cut, causing a huge loss of habitat for the native and migrant wildlife we share our region with.

In 2007 Escambia County (EsCo) selected a large engineering firm to develop a Detailed Specific Area Plan (DSAP) for EsCo Mid-West Sector Plan. The planners gathered information of current conditions and demographic trends, which included a regional employment center, town centers, village center, neighborhood centers, low impact natural resource areas, and conservation areas. In 2011, the EsCo Board of County Commissioners voted to adopt the plan, which cost the taxpayers \$1M. Based on that plan (think of it as a foundation), in 2012 the county again asked the public which of the seven proposed beltways to Santa Rosa County would be best for the region given the proposed Sector Plan.

Members of the BFA attended those meetings for several reasons, including to keep up with proposed growth and to remind the engineers to span wetlands and riparian zones with bridges rather than culverts, and to

gather information - after all, it is the objective of the BFA to support, develop, and implement programs that will affect the following: 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; 3) Advance the causes of plant, marine, and wildlife preservation; and 4) Encourage environmental education and outreach.



Figure 1. Detailed Specific Area Plan (DSAP) for EsCo Mid-West Sector Plan – showing the vast network of creeks (natural drainages) in green leading to the Perdido River.

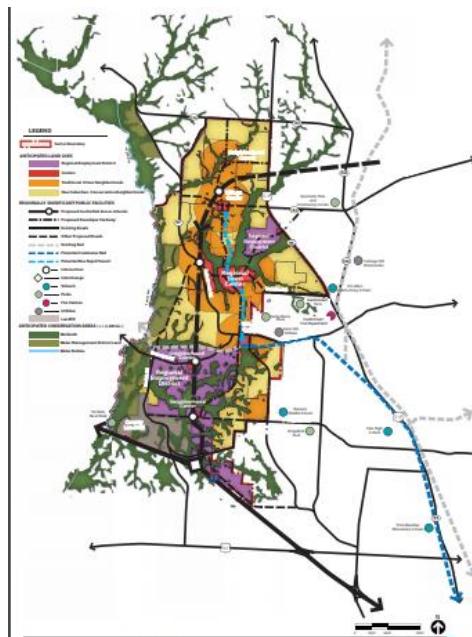


Figure 2. Long-range plan for EsCo Mid-West Sector Plan including proposed roads, intersections, and land uses. (https://myescambia.com/docs/default-source/sharepoint-developmental-services/planning-zoning/long-range-conceptual-framework-map.pdf?sfvrsn=c7ad1f55_9)

What are the expected environmental consequences of these long-term landscape changes? Right now, they are not looking so good. At the current trajectory our environment will likely suffer because of the way we've been developing our landscapes. The coastal region is an unusual ecosystem based on highly erodible sandy soils. In fact, except for iron-stone found in the northern portion of our panhandle counties among the hardwood and mixed pine ecosystems, our coastal area has no naturally occurring rocks*. This ecosystem has evolved fast growing plants (native plants) which support numerous wildlife (both resident and migrants) while stabilizing these soils in place. The landscape has adapted to pop-up storms, lightning strikes, the occasional fire, and high rainfall (averages at 65" but in 2017 we received over 90").

One size does not fit all – especially here. Glance back at Figures 1 & 2 again. Picture that system similarly to our human circulatory system in which each small capillary is important to deliver oxygenated blood. Do you see the green intravenous system? That complex system is critical to the health of our waters. The native plants that have evolved here intercept, slow, and hold water until it can sink into ground water. This is the magic place where many important insects start their life-cycle. These insects will feed many fish, birds, and wildlife as they convert plant matter into protein. The cleaner the water, the more diversity and the higher quality of sensitive species.

The conundrum with all the plans (long-range, sector, new interstate, new tech parks, new subdivisions, and roads) is they do a poor job of spanning the low-lying wetlands, creeks, branches, and streams. Attending these meetings, participating, and offering education seems to be ineffective and unsuccessful. A common theme from FDOT and the various counties is that it is too expensive to span these areas. I'd like to point out that all those plans discussed earlier are expensive and often just sitting on a shelf collecting dust, never to be implemented. I would like to counter that it is far costlier to fix something after you break it, than to protect it from being broken in the first place.

Fortunately, our city, county, and federal agencies are developing foundational plans with an eye towards the future, but it will become critical for these decision makers to adopt a more landscape-scale, community-based conservation, or to simply bring a holistic approach to the planned development of our future landscape. While many consultants are self-proclaimed experts, few have experience with our ecosystems, which is evidenced repeatedly by the hiring of consultants unfamiliar with the local landscape. Often, what gets sold to the public is an approach which includes bringing in non-native materials* (rocks, cement blankets, etc.) to stabilize our water conveyances.

We can look to what is happening in Central FL with the St Lucie River, where toxic algae are coating Florida's waterways once again- threatening wildlife, public health, and Florida's tourism-based economy. This cannot be our new normal. We deserve clean water and summers free from toxic algae. Our economy is tied to tourism; protecting water quality protects our economy, our community, and our health. We cannot afford to cut corners anymore.

The environmental consequences of continuing to fragment our waterways and hardening the uplands will cause accelerated water quantities to carry contaminants (stormwater) into low-lying areas. This will increase scouring and sedimentation rates, cause uncharacteristic flashiness of water-levels, and increase flooding upstream as waters build-up behind bridges, all the while resulting in continued loss of habitat and choking our waterways at incredible rates. One need only look at Carpenter Creek and Bayou Texar to see an illustration of how the fragmentation (10 major roads and hundreds of culverts) and sedimentation in the watershed have resulted in a highly impaired urban waterway in less than 60 years.

What type of management actions, in what geographic areas or types of ecosystems, are likely to have the greatest effect? The value of buffering low-lying areas with native grasses and other native flora in coastal areas is critical to the health of our waterways. Redirecting development away from areas known to be prone to flooding, storm surge, and coastal areas will become more critical as we run out of land. Our community is changing (evolving) as new growth leads to new opportunities which bring more people to the region.

Scattered throughout our area are many multi-generational locals who have experienced floods, hurricanes, fires, and other land altering changes. It wasn't that long ago that our forests were clear-cut and replanted with a faster-growing, less valuable species of pine tree. It wasn't that long ago that we began understanding the importance of fire management on the Longleaf Pine Ecosystem, and the vast benefits from fire for managing invasive species for all the native flora and fauna.

Our landscape is unique, complex, and extraordinarily beautiful, but not well understood by many. It is not like any other area; we do not have rocks, but we have shifting sand bottom rivers and creeks. What type of management actions are likely to have the greatest effect? In a nut shell, educating the public so they can educate their decision makers. The BFA is committed to continuing our citizen science water quality monitoring efforts, while training the next generation of scientists and responsible citizens in the Pensacola and Perdido Bay watersheds. We have maintained the most extensive water quality testing program in the area for approximately 50 years. To that end, we have partnered with several academic institutions and various departments at UWF to explore the mutual benefits of sharing our history and expertise with engaged students, at both undergraduate and graduate level. Educated citizens can help shape our future community.

Project Oyster Pensacola (POP) – continues to delight our participants while providing interesting information about area waters. In Perdido Bay, participants have observed playful dolphins checking out the oyster cage hanging off a dock, whereas participants near Escribano Point have noted their oysters gone due to either a crafty raccoon or an otter. Oyster cages hung in various bayous have been observed growing at fast rates, likely because of the nutrients in those waters. We will be hosting another workshop in October, for folks interested in participating in this program. Our team will be out sampling water quality, assessing survival rates, measuring oyster's growth and weight before the August meeting. Folks interested in participating in the next round of POP are asked to email TheBreamFishermen@gmail.com and get on the list. Folks who do not have access to the waterfront can still participate and we will assist in coordinating a dock or access for this project.

It is with a sad and heavy heart that we have lost so many good folks in recent months. Among those was one of the BFA Founders, **Olin Tisdale**. Olin was a self-proclaimed 'River Rat', who was born in 1925 and knew every bend in the river. By the time I met him, he had 101 hobbies including beekeeping, hunting, fishing, carpentry, model airplane building and part time farming. We also lost **Gary Sansing**, a man who made a huge difference in so many people's lives and was at virtually every city council and county commission meeting advocating for open and transparent government. We lost a true warrior when we lost **Andrea Rockwell**, a spirited soul with a love of nature, music, and our coastal way of life. And we lost a giant for the environment when we lost **Nathaniel Reed** who was a fierce environmental advocate, he also co-authored the Endangered Species Act and founded the group, 1,000 Friends of Florida to push for better management of Florida's runaway growth and better planning to deal with its consequences.

http://www.tampabay.com/news/environment/Nathaniel-Reed-Florida-environmental-advocate-and-co-author-of-the-Endangered-Species-Act-dies-at-84_169924582

**Now hear this...the next FDEP Water Quality Training Class will be Saturday, 22 September. Please drop us an email to receive more information.
TheBreamFishermen@gmail.com**

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;
- 3) Advance the causes of plant, marine, and wildlife preservation; and
- 4) Environmental education and outreach.

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 \$20 annual dues to our mailing address:

Bream Fishermen Association

1203 N. 16th Ave, Pensacola, FL 32503
