Florida Association of
FANREP
Natural Resource Extension Professionals

VOLUME: XIII
ISSUE: SUMMER
2018

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http:// anrep.ifas.ufl.edu/

MESSAGE FROM THE FANREP PRESIDENT!

Hi all,

The longer I work in Extension, the faster the years go by. In the fall newsletter I wrote about the success of last year's EPAF and now the 2018 EPAF is upon us. The EPAF Board reports record registration numbers. The hotel block filled quickly, so if you are not sharing a room, please reach out so that our colleagues will not have to stay at a remotely located hotel. There will not be an activity Monday night, but dinner on your own instead. This opens up an opportunity for some pre-dinner meetings and additional networking.
I had suggested invasive species as a theme this year. I feel a bit like an invasive species as it seems I am always invading my colleagues lives, asking them to step up to a committee, leadership role, or to represent FANREP at an event. Nothing has changed. At EPAF, FANREP will have a leadership change which creates openings I ask you to consider. There are a number of committees that need your participation for this association to run smoothly. Our membership meeting will be on Monday August 27 from 3-5 pm in Champions C. I encourage you to be there. I also encourage you to chat with new Agents, Specialists and even program development and evaluation faculty that support us about our valuable work and becoming an active member.

EPAF is also providing a breakfast on Thursday August 30 from 7:00-8:30 am to meet with Initiative groups. Many of us report under more than one: Water, Natural Resources, Community Development or other. I would recommend joining in with a group that reflects where you report the largest percent of your outcomes and impacts.

If you are unclear, visit Roadmap and Teams, Team Pages on the PDEC website (http://pdec.ifas.ufl.edu/).

Under each Initiative Team, Priority Working Group (PWG) Plans of Action (POA) are presented and PWG leadership team members listed in bold can help clarify that PWG's POA and purpose and your role.

I will close with another of my favorite quotes from Theodore Roosevelt:
"To waste, to destroy, our natural resources, to skin and exhaust the land, instead of using it so as to increase its usefulness, will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them amplified and developed."

Susan Haddock
FANREP President

UF UNIVERSITY of FLORIDA
IFAS Extension

Updates with Invasive Species

Some good news to share: we will (hopefully) soon have new biological controls for Brazilian Pepper. Those who live in Central and South Florida know how out of control this pretty little tree is.

At this point, the Fort Pierce lab under Dr. Carey Minteer, is awaiting release permits for the Brazilian Peppertree thrips (*Pseudophilothrips ichini*) and the yellow Brazilian peppertree galler (*Calophya latiforceps*).

Once the release permits are granted, the lab will begin mass-rearing and releasing these controls at selected release sites.

I'm not happy to share that during a dive trip to Exuma, Bahamas I found out the fishing regulations are that spearfishing is restricted to free divers only and only with the use of a Hawaiian sling.

Although I understand the intent of the policy is to preserve native fish species, most dive excursion operators, crew and guests understand the importance of reducing the population of this invasive species. Spearfishing for Lionfish while scuba diving reduces numbers more efficiently than free diving.

There are efforts to change the regulations, but change seems to be slower than the increase in Lionfish population. And, selfishly, we missed out on a Lionfish meal.

Susan Haddock
Urban Horticultural and Small Farms
Hillsborough County Extension
szcrmchz@ufl.edu (813) 744-5519 ext 54103

A Beautiful but Troublesome Tree: The Mimosa

All along the roadsides and in home landscapes in summer, a profusion of fluffy pink blossoms are adorning trees known as mimosa, or *Albizia julibrissin*.

This native of China was introduced to home landscapes in this country in the 1700's to enjoy the fragrant, showy flowers and fine, lacy foliage. However, there is a dark side to this lovely tree. After

blooming, it produces an abundance of pods each containing 5 to 10 seeds. Seeds can be spread by wildlife and water; this is evidenced by the appearance of mimosa trees along the roadways, streams and in our natural areas. The seeds can also remain dormant for many years, allowing the trees to keep sprouting long after the mother tree is gone.

Mimosa has been categorized as an invasive exotic plant in Florida by the University of Florida IFAS Assessment of Non-Native Plants in Florida's Natural Areas. This designation means that the tree has not only naturalized, but is expanding on its own in Florida native plant communities. This expansion means that our native plants in natural areas get crowded out by mimosa as it reproduces so prolifically.

The Florida Exotic Pest Plant Council (FLEPPC) publishes a list of non-native plants that have been determined to be invasive.

The first step in controlling this pest plant is to remove existing plants in the landscape. Cutting it down at soil level and immediately painting the stump with a 25% solution of glyphosate or triclopyr should do the trick.

There are some native trees that make excellent alternatives to mimosa such as fringe tree (*Chionanthus virginicus*), silverbell (*Halesia carolina*) and flowering dogwood (*Cornus florida*).

Mary Salinas
Environmental Horticulture
Santa Rosa County Extension
mderrick@ufl.edu (850) 623-3868

Sargassum Invasion

This summer, you may have noticed tons of brown organic material washed up on beaches and decaying all over the Atlantic side of the Florida Keys. But what is it, really? And why is it appearing on our beaches? It's called sargassum, and it is brown algae, or seaweed, that floats in massive mats out on the open ocean. The area of the ocean from where sargassum comes is called the Sargasso Sea. It is not a true sea at all, but an area far offshore in the Atlantic Ocean between the eastern coast of Florida and Bermuda.

The Sargasso Sea, and the mats of sargassum that float within it, are defined by the dominant ocean currents – the Gulf Stream on the west, North Atlantic Current to the north, Canary Current on the east, and the North Atlantic Equatorial Current to the south, all of which create a swirling gyre that contains the sargassum floating out at sea. Frequently, the sargassum gets caught up in one of the currents and escapes the Sargasso Sea. The last time the Florida Keys experienced a heavy sargassum loading year was 2015. The University of South Florida Satellite-based Sargassum Watch System has predicted 2018 will be a major bloom year, which is already impacting the Caribbean.

If you like to fish, you may have heard these floating algae mats called the "weed line," and they are fantastic spots to sportfish. Sargassum is actually a very important habitat type out in the open ocean as it provides one of the only places for some species of fish, crabs, and juvenile loggerhead sea turtles to forage and hide from predators. A thick clump of sargassum provides a feast for many species, including birds, and also attracts the larger gamefish who prey upon these species, like mahi and tuna. NOAA Fisheries considers sargassum essential fish habitat for snapper, grouper, gray triggerfish, and coastal pelagic migratory species like mackerel.

In the Florida Keys, when we experience prevailing winds from the south and southeast, these massive floating mats of sargassum, that have broken free from the circling gyre of the Sargasso Sea, are washed onto shore with the wind and waves. Tons and tons of it! Unfortunately, the dead and decaying sargassum can remove oxygen from the water and lead to fish kills, smother seagrasses and turtle nests, and can become packed so thick inside the residential canals it can become difficult to get your boat out.

Historically, washed-up sargassum is one of the ways beaches were created in the Florida Keys, as the accumulation of seaweed along the shoreline helps to keep the sand from eroding and provides nutrients to help enrich the soil. But when the sargassum encounters a seawall or a canal instead of the beach there is little benefit for it decays, sinks, and stinks! Unfortunately, this is a major cause for fish kills because the decomposition of organic matter literally removes the oxygen from the water column.

If you would like more information, please contact Shelly Krueger at the Monroe County Extension Service at 305-292-4501.

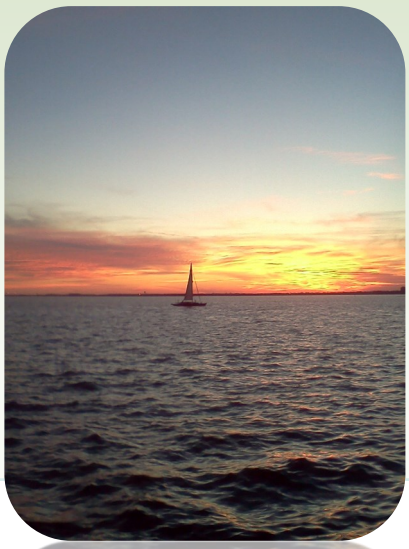
Shelly Krueger, Florida Sea Grant Marine Agent
Monroe County Extension
Email: Krueger-Shelly@MonroeCounty-FL.gov
Office: 305.292.4502

FANREP Travel Scholarship Program

We have a rolling application cycle to help with travel costs to conferences, workshops, in-service trainings, etc.

You must be an active FANREP member.
No more than one award/person each year
Maximum amount for the scholarship is $300
The due dates for the 2018 cycles are:
January 15 March 15 June 15 September 15

Each recipient will be asked to write a brief summary of their experience for the newsletter.



Applications can be found at http://anrep.ifas.ufl.edu/Scholarship.shtml.

All applications should be sent to Lloyd Singleton at lsingleton@ufl.edu

UF/IFAS Assessment of Non-Native Plants

Nonnative invasive plant species such as old-world climbing fern (*Lygodium microphyllum*), Brazilian pepper (*Schinus terebinthifolia*), and water hyacinth (*Eichhornia crassipes*) pose a significant threat to Florida's natural areas (Figure 1). Annual management costs creep into the tens of millions of dollars. Management costs increase and the likelihood of eradication decreases as invasive species establish and spread further (Figure 2).

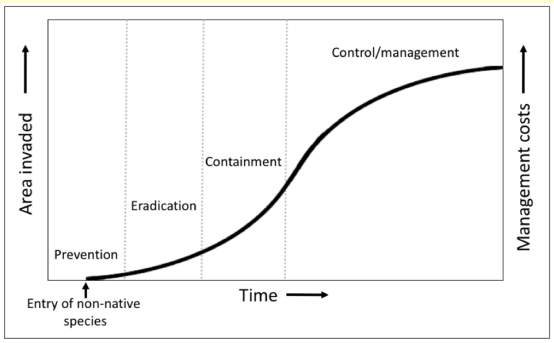
Prevention and early detection is the most effective management strategy. Clearly, catching non-native species as early as possible is key to protect the Florida's unique natural resources. Alternatively, not all non-native species are, or will become invasive. In fact, many non-native species contribute to Florida's agriculture and horticulture industries without harming our natural resources. Screening these species for invasion risk before introduction can also benefit the state's economy.

Figure 1.

The UF/IFAS Assessment of Non-native Plants in Florida's Natural Areas is a program that provides literature-based risk assessments to diagnose or predict the "invasiveness" of non-native species that either occur in the state or for species that are proposed for introduction. We currently provide recommendations for 875+ species. University faculty and staff refer to the UF/IFAS Assessment when discussing non-native plants and all UF/IFAS Extension publications discussing specific non-native plants (e.g., invasiveness, ecology, distribution, management, use, and value) is required to include UF/IFAS Assessment recommendations.

The UF/IFAS Assessment has recently expanded outreach activities through educational talks for groups such as Master Gardeners, Florida Native Plant Society chapters, and County Extension offices. We have also increased our research activity and have recently published on the invasion risk of clumping and running bamboo species.

The UF/IFAS Assessment team is actively identifying and evaluating potentially problematic non-native species. Recommendations and supporting information from the UF/IFAS Assessment can be found



Deah Lieurance
UF/IFAS Assessment Coordinator
https://assessment.ifas.ufl.edu/
dmlieurance@ufl.edu (352) 294-1580

Florida First Detector Workshop

Invasive species come in all shapes and sizes. They can look very similar to some of our native plants and animals or just become so common place that we don't realize that they are invasive. Here at UF/IFAS Extension Marion County we partnered with Dr. Amanda Hodges and other specialist at the UF Entomology and Nematology department to offer the Florida First Detector Workshop. This workshop consisted of a half day of instruction on plant pests and concerns with some new potential pests that we may be headed our way including the whitefly, blight and other hardwood pathogens, and the Asian Longhorn beetle. We discussed identification and sampling techniques, compared common pests to invasive pests, and examined damage done by invasive species. The workshop was open to the public and was well received by pesticide applicators and master gardeners alike. Pesticide applicators were able to get continuing education units for attending. Dr. Lyle Buss brought in microscopes and samples for attendees to examine.

One of the hardest concepts that has to be taken into consideration when looking at invasive species is the difference between invasive and aggressive. Even native species can be aggressive and take over areas where they were not welcome, but that does not make them invasive; an example of this is smilax vines. One difference in invasive species is that they are generally very successful hitchhikers, utilizing a multitude of travels methods and then easily establish in a new location.

In Florida, we are an ideal location for new invasive species to call home. Between our mild environmental conditions and our regular importation of good at ports across the state. If the opportunity arises for a Florida First Detector Workshop in your area, it's a great way to get information out on newly persisting pests, potential methods to avoid bringing in these new pests and environmentally sound treatment recommendations. The First Detector workshop focuses on bringing local invasive species to your attention but also how to identify them and including unique characteristics and potential hosts to differentiate between other similar looking species.

Maxine Hunter **Residential Horticulture, Marion County**

maxine32666@ufl.edu (352) 671-8400

CONGRATULATIONS!

Florida Association of FANREP Natural Resource Extension Professionals

Congrats to FANREP member and Scholarship Chair Lloyd Singleton on receiving the 2018 FNGLA volunteer of the year award!

This is a well-deserved award for his green industry BMP training with inmates. If you attended ANREP in Burlington, VT in 2016 you might remember Lloyd's amazing (and award winning) ignite presentation on this training program.

ANREP 11th Biennial Conference, Gulfport, MS
Carrie Stevenson, Coastal Sustainability Agent, Escambia County

The Mississippi Gulf Coast is where I literally got my feet wet as a child and developed a love for the marsh and dune ecology of the Gulf. So, it was with great sentimentality and anticipation hat I returned to the origin of my career. I was grateful that the FANREP travel scholarship covered my registration for the conference.
Over the years, ANREP conferences have been among the highlights of my career. From learning about Arctic wildlife research in Alaska, swimming near waterfalls in North Carolina, and taking in the beauty of Vermont—all while learning from colleagues all over the country, it is not hard to see why many fellow agents make it a point to attend these conferences.

In Mississippi, I was able to present an abstract on one of my local programs, get dozens of ideas for new ones, and serve as a judge at the poster session. I attended a mobile workshop to Deer Island and learned more about the efforts to maintain the dune systems and maritime forests. In all, it was a successful meeting and a meaningful opportunity to learn and improve my skills as an agent.

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FANREP SCHOLARSHIP

ANREP 11th Biennial Conference April 29th – May 3. 2018

Blues, Bayous and Beyond: The nexus of Natural Resources and Stewardship

By Ray Bodrey, Gulf County Extension Director

Recently, I attended and presented at the ANREP 11th Biennial conference, thanks in large part to a FANREP travel scholarship. The conference was held at the Golden Nugget Casino and Hotel in Biloxi, MS. This was my first ANREP conference, and one of the most memorable professional development experiences that I've ever had.

One could not ask for a better atmosphere for a conference. In attendance were natural resource professionals from numerous states, exchanging ideas and learning from one another. As with extension conferences, UF/IFAS Extension and Florida Sea Grant had a great presence, which is almost always noted in initial conversation made by other state extension professionals. This conference gave me an eclectic view of natural resource extension programming, with the exposure diversity of topics. The sessions, both poster and oral presentations, encompassed topics from climate change, economic development, fisheries, forestry, water quality and much, much more.

I also had the opportunity to present an 8-minute ignite talk entitled, "Exploring the Florida Panhandle's Natural Resources through Water Schools". This presentation highlighted an acclaimed natural resource educational program in the Northwest District. Extension Agents not only provide classroom presentations for this program, but participants gain real world knowledge by field exploration into some of the Florida Panhandle's

signature terrestrial and aquatic ecosystems. These 1 to 2-day programs are planned, implemented and evaluated by a team of Northwest District Extension Faculty.

The skills, ideas and networking connections gained from this national conference was a tremendous opportunity. I was fortunate and honored to have receive a FANREP travel scholarship for this important professional development event.

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FANREP SCHOLARSHIP

ANREP 11th Biennial Conference April 29th – May 3. 2018

Blues, Bayous and Beyond: The nexus of Natural Resources and Stewardship

By Abbey Tyrna, Water Resources Extension Agent,, Sarasota County

This was my first opportunity to attend ANREP. I was lucky enough to go with many UF/IFAS Extension colleagues who might have broken some sort of record for the number of awards received during a single conference. It was truly humbling to hear about the great work coming out of UF/IFAS Extension. The FANREP Travel Scholarship partially supported my travel providing me with the opportunity to grow personally, professionally, and to make significant strides toward my Extension Plan of Work.

Personal growth is tricky to document because of the quiet way it can creep in and change a person without them even knowing. For me, personal growth was measured by the number of hours spent in a van with colleagues (~20); the number of nights spent swapping stories of the many challenges and triumphs from mothering highly spirited boys; and the enjoyable spirit of fraternity among Extension Agents. These experiences will be cherished and will paint my perception of this often strenuous job with a fond rose tint.
As result of connecting with Extension Agents personally, I was able to learn so much about extension programs not only in Florida, but around the country. I spoke to several county water resource agents about their programs and discussed ways to improve my own (Figure 1). I was even given permission to steal an idea (Figure 2)! Stay tuned for playing cards outfitted with Florida watershed facts.

At the conference, I presented on the Florida Waters Stewardship Program with Pinellas County Natural Resources Agent, Lara Milligan. This experience of presenting at a national conference is undoubtedly important for my Extension Plan of Work.
These valuable experiences make me thankful to those who contribute to the EPAF silent auction, the members of the FANREP board, and the scholarship committee. Don't forget to donate to the silent auction at this year's EPAF Conference!

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FANREP SCHOLARSHIP

ANREP 11th Biennial Conference April 29th – May 3. 2018

Blues, Bayous and Beyond: The nexus of Natural Resources and Stewardship

By Erik Lovestrand, Franklin County Extension Director

I'll admit that I had never been inside a casino in my life before, so the Golden Nugget hotel/ casino in Biloxi was an eye-opening venue for the biannual meeting of the Association of Natural Resource Extension Professionals this past April 30 – May 3. The location of the meeting on the Mississippi Gulf Coast felt a lot like my Extension home base back in Apalachicola, with a rich history built around fishing in the Northern Gulf of Mexico. Our hosts at Mississippi State University did a great job of organizing things so participants were able to get a nice flavor for the Mississippi Gulf Coast region.

The travel support provided by my FANREP scholarship began paying dividends in the first presentation I attended on Monday of the conference. Our own Ramona Madhosingh Hector presented results of an assessment on impacts that farmers' markets have on the economies of the communities where they operate. This interested me due to a fledgling market that has been running for a couple of years in Apalachicola. I don't have much of an economics background and was not familiar with the online assessment tool that was described so bingo; something I can tuck away in my extension toolbox for later. The SEED (**S**ticky **E**conomy **E**valuation **D**evice) methodology involves conducting surveys with market customers and using a Bureau of Economic Analysis "economic multiplier" to derive annual economic impact within the community. This was just the beginning of a resource-rich four days of presentations by extension colleagues from around the country. You can bet I'll be attending the next ANREP conference in 2020. The fact that it will take place in Bend, OR has nothing to do with it, right?

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FANREP SCHOLARSHIP

ANREP 11th Biennial Conference April 29th – May 3. 2018

Blues, Bayous and Beyond: The nexus of Natural Resources and Stewardship

By Rick O'Connor, Sea Grant, Escambia County Extension

This was my first ANREP Conference. Unfortunately, I could not get funding to cover the previous meetings and I really appreciate FANREP assisting me in attending this one.

And man what conference it was.
Never attending before, I was not sure how this would be similar (or different) from other conferences I have attended. I was very impressed with the lineup of spot-on presentations, fantastic networking, and impressive work that ANREP members are doing. I had heard in the past how well UF/ IFAS does in the awards for this organization – and this year was no different. UF brought home numerous awards, many agents had their names called repeatedly, and all of these projects were well deserving of the recognition they received. As with so many meetings like this, you left their in awe of what others were doing and ideas of how you can improve your programs. I did get an opportunity to present on two of the programs I am currently working on. Managing invasive species in coastal areas and Science Hour – a monthly science seminar series Carrie Stevenson and I developed modeled after Libby Carnahan's Salty Topics program.

I appreciate FANREP giving me an opportunity to present these programs. As with most presentations, I learned as much, if not more, from the audience's questions as they did from the presentation itself.

I am looking forward to the next round in Oregon and will begin saving pennies now.

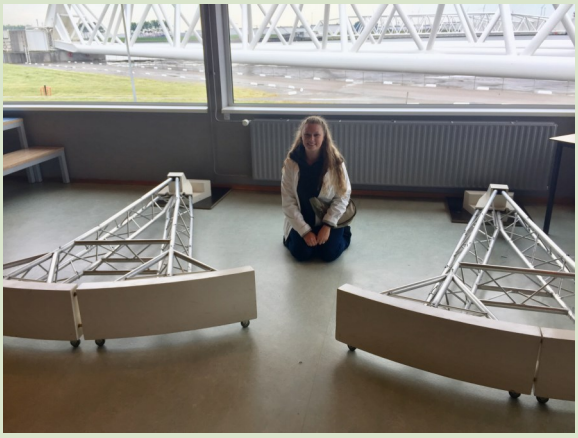
UF IFAS UNIVERSITY of FLORIDA

FANREP SCHOLARSHIP

UF/IFAS International Food Systems/Sustainability Workshop Belgium, Germany, and The Netherlands

By Prissy Fletcher, Horticulture Agent, Putnam County

The Putnam County Horticulture Agent received the FANREP travel scholarship to attend an international workshop studying organic agriculture, sustainability, impacts of climate change and water sciences. One of the most interesting parts of the trip was in South Holland, where the Maeslantkering, or storm surge barrier, was constructed. In 1953, the North Sea flooded resulting in the death of 1835 people, and over 72,000 others were evacuated. The Dutch started making plans for the storm



surge barrier in 1987 at the port of Rotterdam.

The Maeslantkering is made of two large doors or barriers that have the flexibility to swivel in multiple directions, just like the human shoulder. These doors normally are open to allow ships to enter the port. Completed automated by computers, when/if sea levels of more than 3 meters are detected by the sensors, the floating doors close, are flooded with water, then sink to the bottom. This ultimately the last line of defense in a major storm surge.

The construction of this massive project was completed in 1997. The cost of the project was 2.5 billion euros, plus a million for annual maintenance. The engineers test it annually, so you can visit in the early fall if you would like to see the doors close! The International Society of Engineers occasionally refer to it as the "8th wonder of the world." Pictures can barely help show the massive size of this project. It was very exciting to see it in person. The engineer giving us the tour mentioned how they have visited the states after our major hurricanes, and consulted on how we can be better prepared. The Dutch have lead by example, and we can certainly learn and apply their knowledge in Florida and throughout the world. Officials in Miami-Dade County are already implementing similar practices with rebuilding infrastructure at higher levels as they prepare for rising sea levels. Since this trip to Europe, my respect and admiration for engineers has increased greatly, and the Dutch have given me more hope for dealing with a changing climate and sea levels.

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Spotlight on a Specialist

Dr. Basil V. Iannone III

Residential Landscape Ecology Lab

Understanding Ecological Patterns and Processes of One the Fastest Growing Land Cover Type in the US

Historically, my work has employed spatial, computational, and empirical approaches to understand the causes and consequences of plant invasions across varying spatial scales. My lab group (Residential Landscape Ecology Lab) in the School of Forest Resources and Conservation at the University of Florida continues to use these tools to address ecological questions about the fastest growing land cover type in the USA—residential landscapes. This land cover type alters spatial patterns of biodiversity and ecological processes through a number of mechanisms, including the introduction of exotic/ invasive organisms, habitat fragmentation, and the creation of designer and engineered ecosystems, such as ornamental gardens and stormwater ponds. Despite the environmental impacts of residential landscapes, very little is known about their basic ecology.

Moreover, ecological understanding is rarely, if ever, considered when designing, constructing, or managing residential landscapes. My lab group is leading multiple integrative research and extension projects aimed at filling these knowledge gaps. The first will use data on wetland hydrology and water quality, as well as on residential irrigation and fertilizer use, to develop scenario analyses aimed at predicting how designing future residential landscapes to rely on less irrigation and fertilizer for maintenance can benefit wetlands. The second will determine how alpha and beta diversity, structural complexity, and landscape context of ornamental gardens affect the abundance of herbivorous arthropod pests in these gardens. Findings will inform the design and placement of gardens in order to maximize their resistance to arthropod pests, thus decreasing reliance on chemical pesticides. The last two projects focus on an increasingly abundant engineered ecosystem—stormwater wetland ponds (SWPs). The first will quantifying the degree to which ornamental plantings in and around SWPs improve water quality and bank stabilization. The second will employ computational experiments and a trait-based framework to quantify the potential for SWPs to act as vectors for invasive plants. In addition to these projects, my lab is pursuing projects that will quantify the impacts of landscaping plant choice on long-term patterns of plant invasion and the cross-scale spatial variability in ecosystem services that benefit homeowners (e.g., cooling, soil fertility, and arthropod pest control).

Basil Iannone III
UF School of Forest Resources & Conservation

biannone@ufl.gov (352) 294-7499

Meet the Sea Grant Agent in Sarasota

Hola FANREPers!

I'm **Armando Ubeda**, the Sarasota County Program Extension Agent for Florida Sea Grant, and I have been with UF/IFAS – Florida Sea Grant since September of 2016. My work focuses on providing educational programs and assistance to multiple stakeholders to enhance their understanding and stewardship of Florida's marine and coastal resources, promote marine-related industries and enhance the sustainability of Florida's marine fisheries.

I work with diverse audiences such as fishing industry, coastal resource users, public and private organizations, government agencies, youth groups and educational institutions, among others. Some examples of my programs are the Florida Master Naturalist Program, living shorelines and coastal plants workshops, kids fishing clinics, fisheries regulation workshops, artificial reef workshops, and multiple public presentations regarding conservation and wildlife.

I'm thankful for the opportunity to develop marine and natural resource extension and education programs that benefit the community that I am part of, and to influence younger generations to care and appreciate our coastal and marine environments.

About me:
I am native from Nicaragua, and I grew up relatively close to the Pacific Ocean. By the time I was out of high school, I had made up my mind about becoming a marine biologist, surfer, scuba diver and ocean advocate. I received my bachelor's degree in marine science with a minor in chemistry from the University of Mobile's Latin American campus. After I graduated I worked for a couple of years conducting research on coral reefs and manatees on the Eastern side of Nicaragua. Then I was awarded a Fulbright scholarship which allowed me to move to Corvallis, Oregon to continue with my graduate education at Oregon State University, where I earned a master's degree in marine resource management with a concentration in fisheries.
Prior to this position, I was the program manager for Mesoamerica for an environmental organization called LightHawk which allowed me to work on very different projects such conservation efforts to save la vaquita (*Phocoena sinus*) in Baja California, Mexico to mapping mangrove ecosystems in Bocas del Toro, Panama. I also worked at the Center for Shark Research at Mote Marine Laboratory in Sarasota on research and conservation projects regarding many different species of elasmobranchs. Thank you for welcoming me to FANREP, and I am looking forward to meeting and working with all of you.

Armando Ubeda
Florida Sea Grant, Sarasota County
aubeda@ufl.edu (941) 861– 9900

Meet the Sea Grant Agent in Taylor County

Victor Blanco is the UF/IFAS Extension Agent and Florida Sea Grant Marine Agent for Taylor County. He is from Venezuela and holds a Marine Biology graduated degree from Universidad de Oriente (Venezuela), a certificate of the Master Degree on Territorial Impacts of Globalization from Universidad Internacional de Andalucia (Spain), and a Diploma on Climate Change and Kyoto Protocol from Universidad Nacional del Centro (Peru). Also, he has training in "Communitarian Approach on Environmental Conflicts Analysis and Resolution" from the George Mason University (USA).

His previous experience was with government fisheries management for the Venezuelan Fisheries National Institute, and protected areas and natural resources

management for the Venezuelan Environmental Ministry. Mr. Blanco also has more than 18 years' experience in environmental consulting for the private sector (aquaculture, oil and gas, construction sector, etc.), and an important international experience with the United Nations Development Program (UNDP) and UNESCO, as well as the Latin American Development Bank (CAF).

As an extension agent in Taylor County his programs are focused in "Ecosystem sustainability", which includes improving the literacy on coastal and marine issues within the local coastal communities like water quality, marine science for K12 School kids, marine mammals, 4-H, sustainable recreational fisheries and more; and a second program "Coastal-marine and Waterways Activities Support", which includes artificial reefs, waterway markers, commercial fisheries, and more.

Victor is trying to help raise awareness on important local topics within the Taylor County community, like teaching high schoolers about the importance of marine careers and related fields into the local economy, and delivering programs for local entrepreneurs to evaluate the potential of innovative businesses like shellfish seed production and marine ornamentals. Especial emphasis had been taken towards promote a healthy ocean to sustain the driven coastal economy based on scallop harvesting and recreational fishing, reason why he coordinates efforts for resources monitoring (scallops, horseshoe crabs, stranded marine mammals) and marine debris (crab traps, fishing lines, derelict boats) clean-ups.

Victor Blanco
Florida Sea Grant, Taylor County

victorblancomar@ufl.edu (850) 838– 3508

2018 FLORIDA ANREP AWARD WINNERS

Outstanding Educational Materials Awards

Long Publication

Gold Award

Southeastern Forests and Climate Change Module

Annie Oxarart and Martha Monroe, *University of Florida*

Christine Li, *University of Missouri*
Tracey Ritchie, *Earth Day Network*

In partnership with PINEMAP (a USDA -NIFA funded research project on southern pine and climate change) and Project Learning Tree (PLT), a team at the University of Florida developed and evaluated an education module with 14 activities that address climate change impacts on southeastern forests. The module is designed for use in high school science and agriculture courses, with potential use with 4-H, landowners, middle school, and college courses (http://sfrc.ufl.edu/extension/ee/climate). The program used PINEMAP's research framework to construct the curriculum and addresses carbon sequestration, life cycle assessment, forest ecology, genetics, and how people and forests are responding to current and anticipated changes. More than 175 people helped develop, review, and evaluate the module. Four regional trainings empowered 72 facilitators/coordinators to offer 80 teacher workshops, training more than 1,300 educators. Materials on the website have been downloaded more than 12,500 times by registered users. Evaluations show increases in educator self-efficacy, student knowledge, and student hopefulness about climate change.

2018 FLORIDA ANREP AWARD WINNERS

Outstanding Educational Materials Award

Promotional Materials Silver Award

Kayaking Trail

Brittany Scharf, Rebecca Burton
University of Florida

Florida's Nature Coast, including Hernando County, relies heavily on coastal natural resources for economic viability. Visitors and residents alike are drawn to Hernando County for fishing, boating, and wildlife viewing. In 2016, more than 62,000 people paddled the Weeki Wachee River, a magnitude one spring that provides much of the freshwater input to Hernando's coastal ecosystems, causing much congestion and raised concerns of overuse and degradation of the resource by residents. In response, Florida Sea Grant worked with county employees and Girl Scouts to help alleviate this pressure by creating another trail and educating users of the resources. A video was made to bring awareness and promote project.

Outstanding Educational Materials Award

Promotional Materials Bronze Award

Sea Turtle Lighting Retrofits

Erik Lovestrand, Michelle Huber
University of Florida

A door-hanger placard was created to reach out to property owners that could not be reached through phone or email. Project staff left door hangers during field visits to save having to make repeated trips to find owners at home.

A "participation thank-you" product was created for property owners who participated by making their property "sea-turtle-friendly" through retrofitting their beach-front lighting: a custom imprinted sea turtle drink coaster set that read "Thank you for being sea turtle friendly." Many of the properties retrofitted are utilized as rentals and having a practical-use item like this that remains in the house for renters is a long-term reminder of the owner's commitment to sea turtle conservation.

UF IFAS UNIVERSITY of FLORIDA

2018 FLORIDA ANREP AWARD WINNERS

Outstanding Educational Materials Award

Newsletters, Series of Articles

Gold Award

Tampensis, a Continuing Education, Plant Identification Newsletter in Pinellas County

James Stevenson and Lara Milligan, *University of Florida*
Elizabeth Childress, *Brooker Creek Preserve*

Tampensis is a monthly newsletter distributed to graduates of UF/IFAS Extension Pinellas County Natural Resources course: "Advanced Plant Identification." This four-page newsletter contains brief articles on a variety of plant identification topics. Plant profiles, equipment reviews, taxonomic changes are topics that have been covered to date. The newsletter is a way to keep graduates engaged and practicing plant identification techniques after the course. The course is geared for landowners, professionals and interested citizens of the county. Contributors to the newsletter include: Agent, three staff and one volunteer. Contributions include formulation of content, proofing of content and photography. Agent writes a recurring article called "Tree Talk." This newsletter is currently distributed to 120 graduates. The name is honorific of the butterfly orchid, *Encyclia tampensis* that is native to peninsular Florida.

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2018 FLORIDA ANREP AWARD WINNERS

Outstanding Educational Materials Award

Short Publication

Gold Award

Oysters for the Future

Erik Lovestrand, *University of Florida*

The eastern oyster (Crassostrea virginica) provides many important functions in coastal environments, from serving a crucial role in estuary food webs to improving water quality for beach-goers and wildlife. Oysters are also a popular food choice for people - at times the commercial industry landings value has topped $8 million dockside value annually in Florida.
"Oysters for the Future" is a series of short publications that highlight key ecological and human factors important to the long-term sustainability of this valuable fishery. Three publications in this new series have been completed during 2017. Titles include: "Proper Oyster Culling Techniques Matter," "Oystering Rules: The Whys and Wherfores," and "The Value of Science-Based Management in the Oyster Fishery." Future planned topics include shellfish aquaculture, oyster diseases and parasites, shellfish restoration, and the history of oystering.

Outstanding Educational Materials Award

Short Publication

Silver Award

Responsible Boating Protects Coral Reefs

Savanna Barry, Joy Hazell, Ana Zangroniz, *University of Florida*

The short publication "Responsible Boating Protects Coral Reefs" was created in collaboration with Florida Sea Grant agents from around the state. Vessel groundings and anchor damage are a major source of physical coral reef injuries in Miami-Dade County and southeast Florida. The project lead felt it necessary to produce a piece that could serve as a visually-pleasing reference document available to the boating community. The publication contains information on the biology of corals and coral reefs, benefits of coral reefs to coastal communities, current threats to reefs' survival, and actions that boaters can take to help protect coral reefs.

2018 FLORIDA ANREP AWARD WINNERS

Outstanding Educational Materials Award

Short Publication

Bronze Award

Save Our Lagoon Project Plan Fact Sheets

Holly Abeels, Lisa Krimsky, *University of Florida*

The Save Our Lagoon Project Plan outlines a 10-year, $302 million dollar plan for projects in Brevard County planned to meet water quality targets and improve the health, productivity, aesthetic appeal, and economic value of the Indian River Lagoon. Implementation of the projects was contingent upon funding raised through a referendum on the November 2016 ballot. The team discussed how best Extension could support Brevard County residents in making an informed decision regarding the vote. It was decided that 1-page fact sheets distilling the core information within the Plan would be a useful tool. A compilation of previously asked FAQs at public meetings was provided and became the foundation for the fact sheet series. These four fact sheets become a primary educational tool for the Brevard County Natural Resources Department. They were used and distributed at approximately 24 public meetings and were posted on their website below the full plan.

2018 FLORIDA ANREP AWARD WINNERS

Outstanding Educational Materials Award

Televised Conference - Video Conference - Webinar - Podcast - Radio

Silver Award

Scallop Season Kick-off Livestream

Scott Jackson, Victor Blanco, Rebecca Burton, and Savanna Barry, *University of Florida*

A Scallop Season Kick-off event was held in Steinhatchee, FL and the information disseminated via live audience, Facebook Live, YouTube, and Florida Sea Grant website. A team of Agents and Florida Sea Grant Communications worked together to stream and record presentations for use by the fishing public interested in scalloping.

Outstanding Educational Materials Award

Televised Conference - Video Conference - Webinar - Podcast - Radio

Bronze Award

Backyard Nature Network—Video Series

Lara Milligan and Samanatha Olsen
University of Florida

A YouTube video series in the form of a playlist was created to highlight tips for residents to turn their yards into wildlife havens. Each short video (2-4 minutes) is narrated with pictures and videos to emphasize a specific theme and message. A total of nine videos were created and put into a YouTube playlist titled the "Backyard Nature Network". Since November 2017, these videos have been viewed 65 times. These videos support Agent's effort to help educate residents on ways they can support area wildlife in the most densely-populated county in the state. Videos were created by an unpaid intern using the free, Windows Movie Maker software. Scripts were created by intern which were edited by Agent. Draft videos were created using final script and then videos were also edited by Agent. Final draft videos were then sent off for review by a state specialist before being uploaded onto YouTube.

2018 FLORIDA ANREP AWARD WINNERS

Outstanding Educational Materials Award

Website—Social Media—Online Courses

Bronze Award

Horseshoe Crab Watch Training Videos

Savanna Barry, *University of Florida*

Horseshoe crabs are important ecological components of coastal systems. They also carry immense importance for human health because an extract of their blood allows testing of medical devices and medicines for safety and sterility. There is a fishery for horseshoe crabs in many states, including Florida. Due to a lack of a rigorous and standardized monitoring program prior to 2015, resource managers have very little information about the status and trends of horseshoe crab populations in Florida. However, citizen scientists in the Florida Horseshoe Crab Watch program are working to gather data on nesting horseshoe crab populations for managers. The citizen scientist volunteers are trained and managed using resources (including these videos) produced by UF IFAS Extension and Florida Sea Grant, in collaboration with the Florida Fish and Wildlife Conservation Commission, and the UF Department of Biology.

UF IFAS UNIVERSITY of FLORIDA

2018 FLORIDA ANREP AWARD WINNERS

Achievement Award

Outstanding Team

Southern Forest and Climate Change Team

Annie Oxarart, Tim Martin, Martha Monroe
University of Florida
Christine Li, *University of Missouri*
Jackie Stallard, *Project Learning Tree*
Tracey Ritchie, *Earth Day Network*
Kristin Kunkle, *NAAEE*

In partnership with PINEMAP (USDA-NIFA project on southern pine and climate) and Project Learning Tree (PLT), a team at the University of Florida developed and evaluated an education module with 14 activities that address climate change impacts on southeastern forests. The module is designed for use in high school science courses, with potential use with 4-H, landowners, middle school, and college courses (http://sfrc.ufl.edu/extension/ee/climate). The program used PINEMAP's research framework to construct the curriculum and addresses carbon sequestration, life cycle assessment, forest ecology, genetics, and how people and forests are responding to current and anticipated changes. More than 175 people helped develop, review, and evaluate the module. Four regional trainings empowered 72 facilitators/coordinators to offer 80 teacher workshops, training more than 1,300 educators. Materials on the website have been downloaded more than 12,500 times by registered users. Evaluations show increases in educator self-efficacy, student knowledge, and student hopefulness about climate change.

2018 FLORIDA ANREP AWARD WINNERS

Achievement Award

Early Career Leadership

Lara Milligan

Lara Milligan has been with Extension since January 2012. Since that time she has established herself as a leader in her field. and is well-known throughout the state for her significant contributions to new and innovative programs. She is extensively involved in many committees and associations, often assuming leadership roles within the organization. Lara has also received numerous awards for her work and continues to pursue professional development opportunities to expand her knowledge base and skillsets to better serve her clientele. As a result of her efforts, she has presented at local, regional, national and international conferences, which expands her professional network. Lara is a team-player working collaboratively with her state and national colleagues as well as local partner organizations. It is a privilege and honor to nominate my colleague Lara for the honor of Early Career Award for ANREP, she is very deserving of this recognition.

CONGRATS TO ALL!

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Florida Association of

FANREP

Natural Resource Extension Professionals

FANREP is a statewide association for Cooperative Extension Service (CES) professionals working in environmental education, fisheries, forestry, wood sciences, Florida Friendly Landscaping (FFL), waste management, water, wildlife, community development and related disciplines. Our main objectives are to:

- Bring Extension professionals together to discuss mutual natural resource issues, needs, and opportunities.
- Advance natural resource Extension through continuing education for Extension professionals.
- Promote cooperation among states and regions, agencies, associations, and businesses on natural resource education programs.
- Develop, sponsor, and promote education and training programs that advance natural resource management.
- Strengthen communication with Extension administrators

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UF UNIVERSITY of FLORIDA IFAS Extension

FANREP Newsletter was designed by Joan Bradshaw, and compiled by Rick O'Connor