

SHARE:

[Join Our Email List](#)

Fall 2019



## News & updates from your ANREP colleagues

### In This Issue:

President's message

#### ANREP Updates

- ANREP Conference 2020 update
- NNSLE update
- Wildland Fire Initiative
- NREE Foundation
- Extension agent survey
- Norland's new role at NIFA
- ANREP membership reminder

#### Upcoming Conferences

- Extension Leadership Conference
- PILD
- Agritourism Workshop
- UCOWR/NIWR

#### Featured Articles

- Alligatorweed thrips
- ANREP scholarship report
- Southern region update
- Florida fertilizer education
- Butterfly field day
- Fish hotel kits
- IUFRO EKE

#### ResourceExchange

- NCRWN & NCRCRD request for applications
- Wisconsin aquaculture report

IdeaExchange

- Wildland fire materials wanted

Editor's comments

[Visit ANREP Website](#)
[Follow ANREP on Twitter](#)


## President's Message



### [John Kushla](#)

2019 ANREP President  
(662) 566-8013

*North Mississippi Research &  
Extension Center  
Mississippi State University*

### Hello ANREP Colleagues!

We held elections this fall, and we congratulate our new officers! **Alicia Betancourt**, County Extension Director for Monroe County, Florida, is our new President-elect. **Holly Abeels**, Extension Agent for Brevard County, Florida, is our new Southern Region Representative. In addition, two members are returning after re-election, namely **Kevin Zobrist** as Secretary and **Lauren Grand** as the Western Region Representative.

Meanwhile, **Lara Milligan**, Natural Resources Agent for Pinellas County, Florida, will be stepping up to serve as President next year. We are also grateful to **Dr. James Henderson** for his service as he completes his three-year term on the Executive Committee.

Although the elections are over this year, ANREP still needs your help! We have room for anyone that wants to serve. You can serve ANREP in many ways, such as choosing awards or travel scholarships, recruiting new members, or promoting professional development. We are also looking for new ideas as we revisit and amend our Strategic Plan. Just contact your [Regional Representative](#) and let them know how you want to help. Together, we can do great things.

Do you ever wish we could all see and enjoy the natural resources in your state? Well, here's your chance to show us. I am still [accepting proposals](#) for the ANREP 2022 conference. Make your state proud and submit your bid today! Remember that our ANREP 2020 conference will be in beautiful Bend, Oregon. Registration is about to open on the [ANREP conference webpage](#). Also, if you have a program you want to exhibit, register for the next [Public Issues Leadership Development Conference](#) on April 5-8 in Arlington, Virginia. There is a link to register on the ANREP webpage.

I am committed to serving this amazing organization. If you want to talk to me about issues in ANREP, please don't hesitate to contact me.

## ANREP Updates



### **ANREP 2020 Registrations Opens in November**

Early registration will open in November with member, non-member, and one-day rates available. Optional registration is also available separately for mobile workshops, 5k Fun Run, banquet, and pre- and post-conference organized events.

A limited number of scholarships are available! Please see the [ANREP 2020 conference website](#) for more information on how to apply, as well as details on the venue, conference schedule, and more.

### **Sunriver Resort Lodging**

A block of rooms has been reserved for the ANREP 2020 conference at the Sunriver Resort. Please book your rooms early to ensure that your needs are met! The conference lodging rate is available 3 days before and after the conference depending on availability, but specific rooms have not been set aside on those dates. For more information click [here](#).

### **Thank you for the abstract submissions!**

The request for proposals closed on October 11<sup>th</sup>, and we received an incredible number of abstracts from a broad range of perspectives. We'll be notifying speakers of their status in mid-November and sharing the draft schedule on the conference website.

We look forward to seeing you in May 2020!

## The National Network of Sustainable Living Education (NNSLE) wants YOU!



Are you among the many Extension faculty and sustainability educators who want to learn and network with other educators throughout the country? If you said yes, then you should consider joining the [National Network for Sustainable Living Education \(NNSLE\)](#). NNSLE is an ANREP initiative that provides professional development and networking opportunities for sustainability educators and practitioners. Sustainable Living encompasses all Extension program areas from agriculture to Sea Grant. NNSLE defines “sustainable living” as an “ethic of stewardship in which our desire for

fulfilling productive lives is thoughtfully and consciously balanced with the social, economic, and environmental security of life on Earth, now and for future generations”.

NNSLE provides monthly professional development opportunities including delivering monthly presentations to a national audience, collaborating on national projects, learning about education programs from other states, and just making new friends.

Some of the national program material that NNSLE teams will work to develop or update in 2020 include; Citizens Guide to Thoughtful Action on Climate Change, Handbook for Sustainable Living and Sustainable Outreach in Extension; National Strategic Plan.

Each month, a NNSLE member or invited guest delivers a 15 to 30-minute presentation on a sustainability topic. Some of the programs we have learned about include: United Nation Sustainable Development Goals, community development frameworks; an energy equity program in Sarasota, Florida; and how to use working groups to increase networking among NGOs and small governments. These webinars are recorded and available for viewing later. Upcoming opportunities include; Landscaping for Fire Prevention and a program to reduce invasive plants.

We would like to celebrate 26 new NNSLE members in 2019! Our membership is now 111 Extension professionals! Thank you!

Spots are available for 2020, so let us know if you have a topic you would like to share!

Please contact co-chairs [Linda Seals](#) or [Alicia Betancourt](#) to sign up for meeting notices, join our “TEAMS” group or to present your program.

Meeting Dates- 2pm EST

### 2020

January 6<sup>th</sup>

February 3<sup>rd</sup>

March 2<sup>nd</sup>

April 6<sup>th</sup>

May 4<sup>th</sup>

June 1<sup>st</sup>

July 6<sup>th</sup>

## National Extension Wildland Fire Initiative

The [National Extension Wildland Fire Initiative \(NEWFI\)](#) now has a website !



We are looking forward to your participation in several upcoming events. First, we will be hosting an Extension special session on November 19, 2019 at the upcoming Association for Fire Ecology [8th International Fire Ecology and Management Congress](#) in Tucson, AZ. The session will include presentations from members of NEWFI, and will be followed by a discussion-based “Fire Circle” about how Extension does and can partner on wildland fire efforts. During the conference, on November 20 from 12:30-1:30pm, NEWFI will also be holding an in-person meeting, and all ANREP members are invited to attend. We will also have a NEWFI booth, and are inviting each state to share up to four fire-related Extension publications, fact sheets or other materials. Please bring yours for sharing, or if you are not attending the conference, contact [Jennifer Fawcett](#) if you would like any materials to be shipped.

Finally, the NEWFI leadership team has been working with the ANREP 2020 Conference team to plan a [post-conference field day](#) on May 7, 2020. During the field tour, we will see parts of the Chiloquin Community Forest and Fire Project (CCFFP) in action. Along the way, we'll also hear from Extension professionals who deliver a variety of fire-related programs throughout the nation. Be sure to stick around after the conference for this fantastic field day!

### **Are You Interested in becoming a member of NEWFI?**

If you would like to be added to the ANREP Wildland Fire Google Group to receive email communications and updates in the future, please go to <https://groups.google.com> , search “ANREP Wildland Fire Initiative” and request to join from a Google email account. If you have any questions, please contact:

[Jennifer Fawcett](#) , Extension Associate

Dept. of Forestry and Environmental Resources, North Carolina State University  
919-515-8288

## **Heard in the Field: “What’s So Great About NREEF?”**



NATURAL RESOURCE EXTENSION EDUCATION FOUNDATION, INC. (NREEF) is a new educational public charity to support ANREP and allied natural resources Extension activities and programs. NREEF promotes the advancement, knowledge, and understanding of natural resources – for their sound conservation and management – to the betterment of the environment and society. NREEF received its full 501(c)(3) status from the IRS on the first of October. NREEF is governed by a board of volunteer Trustees, with three Trustee officers, a President, Vice President, Secretary, and a volunteer (non-voting) Treasurer. You can see our current trustees (and contact information) and learn more about NREEF at our website: [nreef.org](http://nreef.org) .

What’s so great about NREEF? The possibilities are endless, and the opportunities are as large as we can dream and only as small as we limit ourselves. Up until now, there was no such organization to help us expand our ways of working while supporting our values regarding conservation and environmental resources education. We are an organization that is focused on today and the future for natural resource Extension education, especially that done by ANREP members. A few of the possibilities might include: organizing and funding a multi-state or national initiative based on private donations and diverse partnerships; creating a web-based clearing house of educational information and regular webinars to generate support and concern for topics of natural resource

importance; establishing a fund or endowment (that bears your name, or that of another) to support a specific program or educational component of ANREP's biennial meeting; or even set up a trust, estate gift, or IRA required minimum distribution contribution with NREEF that invests in the future of the work that has been so important to you and provides you or your heirs with tax savings. These are just a few examples of the ideas that NREEF is exploring. We invite your help to identify those signature projects for which to initiate raising funds in 2020.

Lastly, NREEF needs volunteers with expertise concerning fundraising, marketing, and development. We are planning a major fundraising campaign in 2020 and we need people with ideas and energy. If you have an interest, we welcome your involvement. Simply contact one of the trustees to get involved. Of course, we would greatly appreciate your financial support and help in finding other possible donors. All donations to NREEF are 100% tax deductible. They can be given by [visiting our website](#) and clicking on "Give!" at the bottom of the home page. Both credit card and check giving options are found here. Please think about how you might make a difference for the future of natural resources Extension education today!

Submitted by the NREEF Board of Trustees

## Water Resource Conservation Survey of Extension Agents

Water resources conservation is becoming increasingly important to our clientele. Consequently, a team of Extension personnel from Mississippi State University is conducting a survey of Extension agents with agriculture and natural resources responsibilities to explore the best way to meet professional development and educational material needs of Extension agents who are responsible for addressing this issue. Our Extension Service is collaborating in this project.

**As an agent with natural resources responsibilities, all ANREP members are invited to complete the short, anonymous, IRB-approved survey.** If you have questions, comments, or concerns about the survey instrument, contact [Leslie Burger](#) or [Audrey McCrary](#).

*\* Editor's note: the infographic below focuses on input from southeastern region extension agents but the study authors are inviting input from ALL ANREP members, regardless of geographic location.*

[Take Survey](#)



MISSISSIPPI STATE UNIVERSITY™  
EXTENSION

## Water Resource Conservation Survey of Extension Agents

This survey is designed to help determine training needs of southeastern agriculture and natural resource Extension agents in topics of water resource conservation, as part of a bigger research project. We want to help agents educate the public, increase awareness of conservation issues, improve services for agricultural producers, and increase implementation of conservation practices. But to do that, we need your help!

### Who can participate?

Any employee of the Extension Service with **agricultural or natural resource** areas of responsibility in the U.S. southeastern region.



### How long is it?

The online survey is made up of about 14 questions. It takes approximately **8 minutes** to complete.



### Are my answers confidential?

Your answers are **entirely confidential and anonymous**. No one will be able to connect you to your answers.



### What happens after the survey?

Data from this survey will be **analyzed** to create relevant professional development opportunities and Extension materials.



### Who can I talk to if I have questions?

If you have any questions about the survey or research study, please contact either **Audrey McCrary** at [akm401@msstate.edu](mailto:akm401@msstate.edu) or **Dr. Leslie Burger** at [leslie.burger@msstate.edu](mailto:leslie.burger@msstate.edu).

MSU Institutional Review Board Approved Protocol: IRB-19-229

This work is supported by the US Environmental Protection Agency (Grant No. G00003401).

## Norland Named NIFA National Science Liaison



Dr. Eric Norland is the National Science Liaison for NIFA's Environmental and Natural Resources Science portfolio. He is responsible for creating partnerships and connections with agencies and stakeholders focused on environmental systems, forests, water, air, range and grasslands, and climate change. Dr. Norland focuses on the sustainable management of the Nation's working lands (agricultural, range, and forest lands) and their resilience to changing climate conditions. He is the NIFA liaison to the U.S. Global Change Research Program, National Association of University Forest Resources Programs, National Science Foundation's programs in environmental systems, National Association of Soil and Water Conservation Districts, and several Hatch-funded multi-state

committees. Dr. Norland is a Certified Forester with the Society of American Foresters (SAF), an elected Fellow of SAF, and past Chair of the National Capital SAF. Prior to his appointment as a NIFA National Science Liaison he provided leadership for the Renewable Resources Extension Act program and co-leadership for the McIntire-Stennis Cooperative Forestry Research program. He has a master's degree in Natural Resources and a Ph.D. in Environmental Biology from the Ohio State University. Dr. Norland will represent NIFA primarily in the areas of natural resources and environment.



# IT'S EASY TO BECOME A MEMBER TODAY!



**ANREP is open to current and retired Extension professionals, students studying natural resources, and professionals working in natural resource education.**



## Membership Cost

- Ext Professional - \$60
- Student Member - \$30
- Affiliate member - \$60
- Life Member - \$300

## ANREP is for you if you work in:

- Climate Change
- Community Development
- Ecosystem Health
- Energy
- Fire
- Forestry
- Horticulture
- Invasive Species
- Rangeland Ecology & Mgt.
- Sustainable Fisheries
- Water Resources
- Wildlife

## Join by Dec. 31 to enjoy all of these awesome benefits:

- Engage with natural resource colleagues from around the country through ANREPs core initiatives & committees
- Participate in continuing education events
- Earn national recognition from your peers through ANREP's competitive awards program
- Gain access to scholarship funds to attend professional development opportunities in the natural resource field
- Participate in ANREP's biennial conference coming up in Bend, OR on May 3-6, 2020!



[Click here for more details and to join](#)

## Upcoming Conferences



## 2020 Conference Theme: **2020 a Vision for the Future**

The Conference will provide an opportunity for developing leadership skills for association members through:

- Key Note Speakers including: A. Scott Reed, Oregon State University Extension Director Emeritus, a nationally recognized leader and innovative Extension Director and the Natural Resource Leadership Institute who will provide training required to find inclusive solutions to seemingly intractable problems. They will provide training on collaborative decision making, conflict management, communication and negotiation.
- Concurrent Sessions
- Poster Sessions
- Updates from the leadership of the Extension professional organizations



**2020  
Public Issues  
Leadership Development  
Conference**

**2020 Theme:  
Moving Knowledge into Solutions**

**Date: April 5-8, 2020**

**Location: Hyatt Regency Crystal City  
Arlington, VA**



**INTERNATIONAL WORKSHOP ON  
AGRITOURISM**

**October 27-29, 2020**

**BURLINGTON, VERMONT**

Extension, farmers, researchers, agricultural service providers, tourism professionals, and others interested in agritourism are invited to the [International Workshop on](#)



### [Agritourism in Burlington, Vermont October 27-29, 2020.](#)

Learn about the latest research and best practices, tour farms in the region, and share your experiences with agritourism.

Visit the [conference website](#) for opportunities to present, sponsor, exhibit, and get involved. If you would like to be part of the conference planning committee, contact [Lisa Chase](#) at 802-257-7967.



**The Universities Council on Water Resources (UCOWR) and National Institutes for Water Resources (NIWR) Conference is scheduled for June 9-11, 2020, in Minneapolis, Minnesota.**

UCOWR/NIWR 2020 Call for Abstracts now open until January 24th [UCOWR/NIWR 2020 Call for Abstracts.](#)

Near the headwaters of three continental basins, Minneapolis serves as a reminder that water connects distant places and diverse peoples.

The conference planning committee is pleased to invite abstract proposals for the 2020 UCOWR/ NIWR Water Resources Conference. These sessions are an exciting part of the program, highlighting recent advances and transdisciplinary solutions to address complex water problems. Those interested in submitting an abstract should complete the [online form](#). The committee encourages abstracts that frame water resource issues in the context of:

- Geographic transitions and spatial gradients in land use, population density, and climate.
- Inclusive engagement among stakeholders to address water competition, conflict, and inequities.

## Featured Articles

**Alligatorweed Thrips – helping to control alligatorweed in North Carolina**

There is a new alligatorweed ( *Alternanthera philoxeroides* ) management tool available in North Carolina. Alligatorweed is an invasive aquatic weed native to Brazil that arrived in the southeastern US in the early 1900s. The plant has opposite leaves, a hollow stem, and a white clover-like flower (Fig. 1). It grows very well in North Carolina's ditches, ponds, and waterways.

The plant spreads through fragmentation, with each node capable of forming a new plant. For this reason, weed whacking ditches with alligatorweed is NOT recommended! Typical chemical control measures have included the use of glyphosate, imazapyr, or triclopyr applied at regular intervals throughout the growing season.

From 2006-2015, the N.C. Cooperative Extension offices in several eastern North Carolina counties received alligatorweed flea beetles ( *Agasicles hygrophila* ), from the Army Corps of Engineers in Florida, in hopes that they would be a useful integrated pest management (IPM) practice for the control of alligatorweed. Unfortunately, NC is at the northern edge of their cold tolerance. Despite repeated attempts, strong colonies of alligatorweed flea beetles were not attained.

In August 2018, a sample of "sick" alligatorweed, from the stormwater pond at the N.C. Cooperative Extension office in Onslow County, was sent to the NC State University Plant Disease & Insect Clinic (PDIC) and the Army Corps of Engineers environmental lab in Vicksburg, MS. Both laboratories confirmed the presence of alligatorweed thrips ( *Amynothrips andersoni* O'Neill). The adult a. thrips is approximately 2 mm in size (Fig. 2), and the larvae are roughly 1.5 mm (Fig. 3).

This was the first confirmed sighting of alligatorweed thrips in NC. The a. thrips has a broader cold tolerance than the flea beetle. The a. thrips at the Onslow site easily survived the 10-day freezing spell that occurred during Winter 2018. This gives us hope that a. thrips will be a good IPM agent in North Carolina. The a. thrips juveniles and adults only feed on alligatorweed, so there is no apparent risk to other plants or crops. This has helped lessen the concerns of local farmers, when discussing a. thrips at Extension meetings.



Figure 1. Healthy alligatorweed with distinctive white clover-like flowers. Photo by D. Rashash



Figure 2. Adult alligatorweed thrips, *Amynothrips andersoni* O'Neill. Photo by D. Rashash



Figure 3. Closeup of immature alligatorweed thrips. Photo by D. Rashash



Early damage appears as discolored and curled leaves (Fig. 4). A high level of predation can completely defoliate a patch of alligatorweed (Fig. 5). These thrips are tiny, yet mighty!

Since their discovery in NC, the alligatorweed thrips have been provided to the N.C. Department of Agriculture and Consumer Services (NCDA&CS) Beneficial Insect Lab, where they are establishing a breeding population. N.C. Cooperative Extension Service has placed a. thrips at alligatorweed locations in Brunswick, New Hanover, Onslow, Craven, Hyde, Chowan, and Camden counties. Within two months of receiving some a. thrips from N.C. Cooperative Extension, staff at NCDA&CS's Beneficial Insect Lab had a strong population and were able to disperse some a. thrips at Apex Lake.

Aquatic pesticide applicators are asked to be on the lookout for signs of thrips damage to alligatorweed. If seen, they can contact me at [diana\\_rashash@ncsu.edu](mailto:diana_rashash@ncsu.edu). We are trying to determine if there are other locations where these beneficial insects are active. This is a great example of finding something wonderful in your own back yard. Or, in this case, your stormwater pond.

*Submitted by:*

**[Diana Rashash](#)**

*Extension Area Specialized Agent-Water Quality and Waste Management  
North Carolina Cooperative Extension*



*Figure 4. Alligatorweed leaf damage caused by alligatorweed thrips. Photo by D. Rashash*



*Figure 5. Patch of alligatorweed impacted by alligatorweed thrips. Photo by D. Rashash*

## **ANREP Scholarship Report**

With the support of ANREP, I attended the Ecological Society of America meeting this August in Louisville, KY. This annual meeting draws people from around the world who work across the spectrum of ecology which gives attendees a fantastic opportunity to think outside the box of their specific field. I presented along with a team from across the Southeast including Adam Maggard, Seth Hunt, Omkar Joshi, Janaki R.R. Alavalapati, David Coyle, Daryl Jones, Bill Hubbard, Leslie Cordie, and Becky Barlow on inspiring family forest landowners to nurture healthy forest systems.

Some of our team spoke from a research perspective, including Dr. Maggard, who shared results from a recent Auburn University survey of family forest owners. He found that while 60% of those owners are not currently earning an income from their land, 80% would like to but don't know where to start. Mr. Hunt, an ecologist with Westervelt Ecological Services, spoke from the practitioner's perspective about using historical data as a starting point for creating restoration goals. He described how to find and use original survey maps to identify forest types through "witness trees," or the trees originally used to mark survey points. Dr. Coyle of course got the audience laughing, but also brought in the much-needed Extension perspective. He described the importance of tailoring outreach, like

using social media to reach a younger landowners and billboards for the general public. Dr. Barlow shared results from her ForestHER program in Alabama, which specifically targets the growing number of female landowners and gives them confidence to make decisions for their land.

In my own presentation, I summarized the work of many others and my own experience engaging newcomers in natural resource education. After several years working in Extension, I will acknowledge that working with the public can sometimes be difficult. But it is so important that we continue to do this good work. The relationships we build in our communities bridge the mistrust and misinformation that surrounds us. It also gives us an opportunity to connect with people around issues they can relate to and unite around. For instance, while a topic like climate change can send people to their opposite corners, when we engage people around the issues of invasive species or water quality we can bring people together. Having a local point of entry makes all the difference.

I encourage y'all to check this meeting out next year. It is massive, yes, but it's rare that you get to hear from so many different perspectives in one meeting. Feedback from other professionals who work in related areas is priceless. And each night ended with a jam session by fellow attendees. You can't beat that!

*Submitted by:*

**[Anne Randle](#)**

*Agriculture and Natural Resources Agent  
University of Georgia Extension*

## Tales from the Southern Region

Hello ANREP members, I ( [Alicia Betancourt](#) ) am the outgoing Southern Region Representative. In the southern region our ANREP members tackle lots of issues and we help clients from bugs to fishermen! The region is comprised of 7 states and has a large number of ANREP members. I have heard that here in the south we take things slow- but that cannot be true for our ANREP members! Our members are leading the way in creative and innovative programs. Check out these cool new initiatives (we may want to borrow);

Extension agent Holly Abeels helped to organize a regional 'science day' program to increase trust in science by familiarizing the public with local scientists and highlight diversity. Scientists wore a "This is what a Scientist looks like" t-shirt and took pictures of themselves out in the world on a normal day. These pictures were posted on social media with the hashtag #ThisIsWhatAScientistLooksLike. You can learn more by visiting this [website](#).

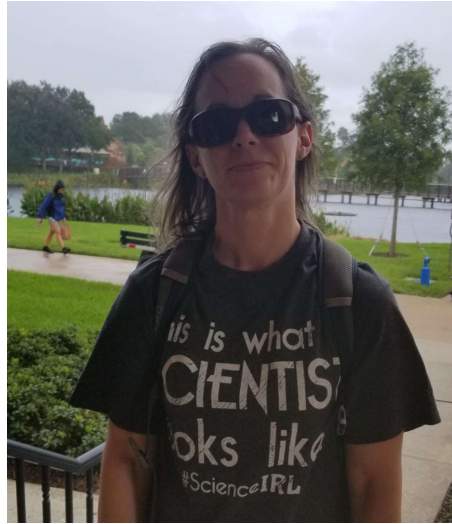
Extension agent Les Harrison has been teaching people to identify carpenter bees. The easiest way to differentiate these insects is by their abdomen, the body segment furthest from the head. Bumblebees have an abdomen thickly covered in fine hairs. Carpenter bees lack the fine hairs and have a shiny abdomen. Almost all carpenter bees build their nest by burrowing into dead wood. Unfortunately, that includes our home's wooden timbers and siding.

Florida Sea Grant Created a [fishing industry certification](#) for sustainable practices. Florida Friendly Fishing Guides apply sustainable fishing and boating BMPs that reduce environmental impacts. Furthermore, thousands of clients will learn about BMPs from the guides and, ideally, carry these best practices back to their own solo fishing trips. All of this adds up to increased protection for Florida's fisheries resources.

Extension agents in Virginia partnered with the Virginia Department of Forestry to offer workshops called [Generation NEXT](#) that provide farmland and woodland owners with the

knowledge and tools they need to help them plan for the future of their land – while keeping it in forest, in family, and intact.

In 2020 the Southern Region Representative will be [Holly Abeels](#) from the University of Florida.



Scientists wore a "This is what a Scientist looks like" t-shirt during a program supported by Extension agent Holly Abeels.



Extension agent Les Harrison has been teaching people to identify carpenter bees.

## Fertilizer education creates behavior change and protects local waterways





*Photo credit: Jalen Bass*

UF/IFAS Extension Seminole County Fertilizing Effectively in Sandy Florida Soils workshops bring a change in behavior to homeowners, protecting the Wekiva River Basin and other local waterways.

The workshops are hosted several times a month throughout Seminole County and were inspired by the Florida-Friendly Landscaping™ program and the county fertilizer ordinance passed in 2017 to prevent excessive nutrient loads into local waterways.

Excessive amounts of nutrients such as nitrogen and phosphorous can cause negative impacts to the aquatic freshwater environment. These excessive nutrients often enter waterways through stormwater runoff, faulty septic systems or leaching from the surface into nearby groundwater.

Nitrate loading data from the Florida Department of Environmental Protection (FDEP) on the Wekiva Basin, a National Wild and Scenic River in Seminole County, shows that urban turfgrass fertilizer contributed to 26 percent of the total basin input. That is only one river, but the Wekiva Basin feeds into the St. Johns river, a high-profile recreational river, as well.

“As we rapidly urbanize, teaching people about fertilizer use is really important,” Tina McIntyre, UF/IFAS Florida-Friendly Landscaping™ Extension agent said. “To see changes in water quality data, it takes a village and that is why we offer Fertilizing Effectively in Sandy Florida Soils workshops for homeowners and landscapers alike.”

Working in partnership with the Seminole County Watershed Management Division, FDEP and the Environmental Protection Agency, these courses educate citizens about the right way to irrigate, the time of year to fertilize, and the best types and correct amount of fertilizer to apply.

The incentive for citizens to attend the workshops is a free bag of fertilizer, but they leave with much more than that. To date, the program has reached thousands of people and has shown behavior change among participants in hopes of decreasing nutrient loads to local waterways.

“These workshops educate participants on what they can do to make a positive impact on our water quality while benefitting their yard and protecting their investment in the plants, turf or trees,” she said.

Survey data from workshop attendees show an 85 to 90 percent change in behavior among participants. Adopting Best Management Practices (BMPs), over 90 percent of attendees now avoid phosphorous fertilizers without a soil test, 98 percent properly manage grass clippings by leaving them on the lawn and 85 percent are using at least 50 percent slow-release nitrogen fertilizers. In class, UF/IFAS Extension measures knowledge gained and intent to change. After class, actual changes in behavior are measured. These metrics indicate that we are moving in the right direction.

“Florida has a large amount of surface water,” McIntyre said. “Most people can name their local water body and they care to protect it by making small changes to their landscape practices.”

To learn more about the Florida-Friendly Landscape™ program in Seminole County, visit [SeminoleCountyFL.gov/ffl](https://www.seminolecountyfl.gov/ffl).

Submitted by:

**[Tina McIntyre](#)**

Florida Friendly Landscaping Agent  
UF/IFAS Seminole County

## Butterfly Field Day



The Florida atala butterfly (*Eumaeus atala Poey*) is a beautiful, somewhat rare hairstreak butterfly characterized by satiny black wings featuring an iridescent turquoise shimmer. It was thought to be extinct due to overharvest of its host plant, *Zamia integrifolia* Linnaeus. f. (a.k.a. coontie). These plants were harvested for their value in the Florida landscape as well as the toxic root starch which can be processed to be edible. The plant contains water soluble cycasin toxin which can be found in all life stages of the atala butterfly. These beautiful butterflies are now found on coontie plants in localized colonies primarily in South Florida.

A representative of the Florida Native Plant Society contacted the UF/IFAS Extension St Lucie County to report a significant abundance of these beautiful butterflies at the Ft. Pierce Inlet State Park. Upon further study, we learned that these butterflies emerge in synchronized patterns enabling us to plan atala butterfly field days for members of the general public. These events attracted media attention and public interest that enabled us to teach people how to identify and conserve these rare butterflies. In addition, because of their rarity, a reporting system has been developed to help identify butterfly colonies.

To date, twenty five locations have been identified and efforts are being taken to increase awareness of the conservation needs of this beautiful butterfly.

### [Florida atala butterfly reporting blog](#)

*Photo: A Florida atala butterfly perches on a sea grape leaf at the Fort Pierce Inlet State Park. Atalas are found in ephemeral populations at Fort Pierce Inlet State Park. Photo credit: K. Gioeli*

Submitted by:

**[Ken Gioeli](#)**

Natural Resources Extension Agent  
UF/IFAS Extension St Lucie County

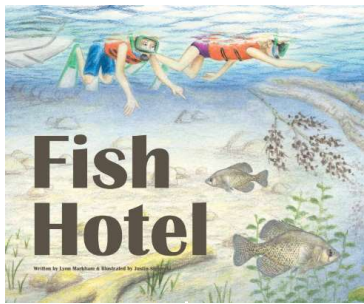


## Fish Hotel Kits: Reaching Out to Audiences of All Ages

The Fish Hotel Kit is designed to inspire people of all ages to take action to help fish. This kit has worked well with kindergarteners in the classroom, 4-H groups of mixed ages, reluctant readers in junior high, local elected officials who make zoning decisions that affect lakes, and senior citizen groups.

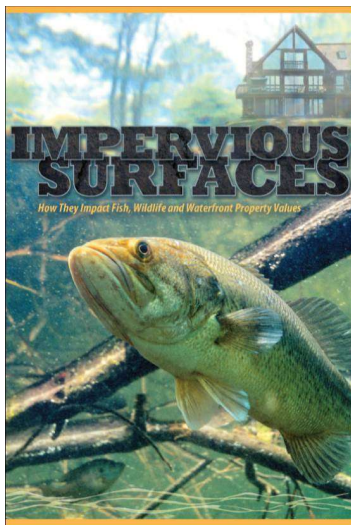
Many people like fish, and that's the hook for this educational kit. Because fish live underwater, what they need to survive is often a bit of a mystery. This kit elucidates some of what fish need and provides ideas for ways we can help fish.

This kit focuses on two areas:



1) **Fish hotels.** What do fish need? A safe place to stay and food to eat. Fallen trees in lakes provide both of these things for fish! Yet 90% of fallen trees have been removed from lake shorelines with homes in northern Wisconsin. The kit includes fiction and nonfiction books about fish hotels; a video reading of the fiction book; a series of shoreline photos for discussing which shorelines are fish-friendly; posters; and resource materials. The books are tailored to meet the third-grade science curriculum standard for ecosystems and can also be used to meet

elementary school reading requirements. These resources also work well with lake groups that value a healthy fishery.



2) **Impervious surfaces** include rooftops, driveways, roads and parking lots that prevent water from soaking into the ground. Runoff from impervious surfaces impact fish by washing pollutants such as sediments, nutrients, pesticides, bacteria, car fluids, and heat into our lakes and streams. The kit includes: a 12-minute video, a PowerPoint, a fish game, a poster, and resource materials. The fish game has been popular with junior high students and various adult groups. Each participant gets a card with a large photo of a fish and the species name. The group guesses which fish will survive at different levels of impervious surfaces as illustrated in the PowerPoint. All participants stand at the beginning of the game and sit down if the fish on their card is eliminated. The vulnerability of fish species to impervious surfaces shared through this game is based on [summarized research from 47 Wisconsin watersheds](#).

In the fall of 2018, about 150 Fish Hotel Kits were distributed upon request to Wisconsin schoolteachers, Extension educators, and nature center educators. A year later, fifty-three of these educators responded to an online survey:

- 75% of respondents used the Fish Hotel Kits
- 83% of respondents rated the kit an 8 or higher on a 10-point scale
- Teachers used it most with 3<sup>rd</sup> and 4<sup>th</sup> graders and older reluctant readers
- Two teachers used the kit with Advanced Placement environmental science students
- Educators reached 1,200 students with the kits in the first year

In addition, educators reported that students learned:

- “nature provides natural homes for living creatures through fallen trees, and it’s better not to interfere with nature”
- “how important it is to leave fallen trees in the water for habitat versus removing them for lakefront perceived aesthetic purposes”
- “things they can do today that will create positive changes in the future for waterways, habitats and animals!”
- “trees can become living habitats for a variety of critters. Leave trees in the water!”

Do you have youth or adult groups that are curious about fish?

You can [learn more about the Fish Hotel Kit, access online materials, or order a kit online.](#)



Submitted by:  
[Lynn Markham](#) and [Karen Blaha](#)  
 Center for Land Use Education  
 University of Wisconsin-Stevens Point

## International Extension Opportunities through EKE

Perhaps one of the easiest and more comical acronyms to remember in our Extension natural resources world is the one for an international group of natural resource Extension professionals. The ‘Extension and Knowledge Exchange’ Working Party aka ‘EKE’, is organized under a larger umbrella association of forestry agencies known as ‘IUFRO’, or the International Union of Forest Research Organizations. EKE first became active in 1994 and has since grown to include over 400 members from 70 countries. It formally sits within one of several ‘Divisions’ (Division 9) of IUFRO and is one of over 100 units, working parties and task forces and is the only one with ‘Extension’ in the title.

The objectives of the EKE Working Party are to:

- serve as a forum for information exchange among Extension forestry workers worldwide.
- promote the concept of Extension through the transfer of knowledge and technology to improve the lives of people.
- improve the quality, quantity, and effectiveness of Extension programs worldwide.

- advance the quality and impact of research on Extension methodologies.

Far from 'eke' ing out an existence, the EKE Working Party has been active on a number of fronts, primarily coordinating an annual meeting, but also providing information to membership via a listserv, and connecting Extension and knowledge exchange opportunities for partnerships across the globe.

Dr. James Johnson, IUFRO leader and Oregon Lakes State Professor coordinated EKE for many of its early years, followed by most recently, Dr. Janean Creighton, Oregon State Extension specialist. Under their leadership, EKE has become a trusted and respected Working Party within IUFRO through many notable accomplishments. Among these have been successful meetings in New Zealand (2018), Canada (2016), Ireland (2015), Germany (2011), and Slovenia (2010), an active listserv, and publishing proceedings, 'best management practices for Extension natural resources, and a thorough global directory of EKE members.



*IUFRO EKE 2015 Ireland*



*IUFRO EKE 2016 Canada*



*IUFRO EKE 2018 New Zealand*

Bill Hubbard, University of Maryland assumed the coordinator role in September at the 25<sup>th</sup> IUFRO World Congress in Curitiba, Brazil. Bill's plans are to continue the tradition of planning an annual gathering of the Working Party, to update and enhance the online directory and listserv, to continue communication via newsletters and other avenues, and to develop a survey to gauge the types of things needed and of interest from the membership. He also plans to reach out and communicate this opportunity to others who may not have heard about it, both here in the USA and in other countries throughout the world.

"I realize the current and potential strength of this group lies in an active, diverse membership, inclusive of as much of the globe as we can be. We have much to learn and gain from high levels of interaction and coordination with our colleagues from all over the world. This is an exciting, yet tenuous time for those of use charged with Extension and delivery of science to our stakeholders. Funding, mis-information, and stakeholder concerns and crises, all combine to place us at the forefront in solving some of our world's most critical environmental, social and economic problems. We can only do this by sharing our science, our tools, our successes and our failures, and not in the least, sharing our impacts together".

Bill invites anyone from ANREP to [contact him](#) at for more information or to join EKE. The price is right (\$0), and the potential benefits are invaluable. For more information about IUFRO, EKE, or international Extension opportunities, [please visit the website](#).

*Submitted by:*

***[Bill Hubbard](#)*** , ***[Janean Creighton](#)*** , and ***[Jim Johnson](#)***

## ResourceExchange

### North Central Region Request for Applications



This fall, the [North Central Region Water Network](#) is partnering with the [North Central Regional Center for Rural Development](#) (NCRCRD) to address the challenges for agriculture and communities posed by devastating recurring floods through a Supplemental Request for Applications.

Together, they are accepting applications for multi-state projects that result in a collaborative white paper or report that:

- Documents current extension responses to long-term flood planning and preparedness across the North Central Region,
- Assesses long-term flood planning and preparedness needs for agriculture and communities that extension is best suited to address,
- Documents gaps in extension programs and the research foundations of extension programs, related to long-term flood planning and preparedness.
- In collaboration with Network leadership, NCRCRD leadership, Extension Program Leaders for Agriculture, and Extension Program Leaders for Community Development develops recommendations for strengthening extension support for long-term flood planning and preparedness and reducing flood vulnerability in the North Central Region.

Lead applicants must have an extension appointment/assignment at a land-grant institution in the North Central Region. Eligible lead institutions include: University of Illinois, Purdue University, Iowa State University, Kansas State University, Michigan State University, University of Minnesota, University of Missouri, University of Nebraska-Lincoln, North Dakota State University, The Ohio State University, South Dakota State University, and University of Wisconsin. Lead applicants may enlist co-applicants and partners from other institutions and organizations.

Applications are due December 6, 2019. Learn more at <https://northcentralwater.org/funding/>

*Submitted by:*

**[Anne Nardi](#)**

*Marketing and Communications Specialist*

*University of Wisconsin-Madison Division of Extension*

## **New Report on Wisconsin's Aquaculture Industry**

[A new report about the state of aquaculture in Wisconsin](#), featuring results from a statewide survey of fish farmers, is now available. The survey was designed to assess Wisconsin's aquaculture industry, with the goal of supporting local fish farmers and helping them grow and maintain their fish farm businesses.

"Aquaculture – or fish farming — is still relatively small in Wisconsin, and there's a lot of room for growth," says Bret Shaw, associate professor in the Department of Life Sciences Communication and environmental communication specialist for the Division of Extension at UW–Madison, who is a co-author of the report. "We are hoping this report will bring together stakeholders to discuss issues and implement plans to support this industry."

The survey was mailed to 300 fish farms across the state in October 2018. A total of 128 surveys were returned for a response rate of 43 percent.

The survey, funded by the University of Wisconsin Sea Grant Institute, was a multi-institutional effort involving personnel from the UW Sea Grant Institute; UW–Madison Department of Life Sciences Communication; UW–Madison Division of Extension; UW–Stevens Point; and Iowa State University.

*Submitted by:*

**Bret Shaw**

*Associate Professor and Environmental Communications Extension Specialist  
University of Wisconsin-Madison Division of Extension*

## IdeaExchange

### Wildland Fire Materials Wanted

Have you recently conducted a program on wildfire or prescribed fire? Did you create a new fire-related fact sheet or other resource? Do you have a fire-related website? We want to know! The National Extension Wildland Fire Initiative is looking for ready-made slides that can be shared during national presentations to highlight the work of Extension professionals. Please compile your wildland fire-related work into one Powerpoint slide with notes (including relevant links and proper credits), and please send to **Jennifer Fawcett**. We look forward to seeing what has been done, and sharing your good work with others!

### A Word from Your Editor



We're careening towards the end of another year. I'm sure the avalanche of "year in review", "best of..." and other year-end lists and articles will start appearing soon. I'm sure it'll be extra special this year since we're heading into a new decade as well.

End of year is always a good time to reflect on the past and future. In Extension this usually means reporting on the past year's accomplishments and progress and planning for the future year's work and setting goals. We seem to operate most comfortably in that one-year-at-a-time mode, with occasional forays into three or five year plans. Whatever your reflection and planning horizons are, I hope you're able to take some time during the upcoming holidays to relive some of your successes over the last year and think about the people you've connected with and positively impacted through your work. I'd like to thank all of you for sharing your stories with me (and your colleagues). I recently realized that this is the 22nd newsletter edition I've put together. I still love doing this ever few months, even if it takes me a few days longer than I anticipate or I end up wrapping it up late on a Sunday night.

Thanks to all who submitted content for this edition. It's always a pleasure reading about your work and the great partnerships you support. The next newsletter will arrive in your inboxes around **February 15**. You can send me content any time. Please try to keep articles to **600 words or less** and the more complete/formatted (i.e. in a Word document) the better. If you're sending photos, attach those separately to your email, don't just embed them in the document. And please send captions and photo credits.

**Chad Cook | University of Wisconsin-Madison Division of Extension**  
**[chad.cook@wisc.edu](mailto:chad.cook@wisc.edu)**