

# CU IN THE WOODS

Clemson Extension Forestry and Wildlife Newsletter



## Managing aquatic weeds in ponds

By Lance Beecher

Ponds are a unique addition to any landscape and offer many benefits to the pond owner. These ponds are typically intended to provide one or more common goals: visual amenities, fishing, swimming, and wildlife or bird watching. While a pond can frequently support more than one goal, maintenance may differ depending on use. Like other parts of the terrestrial landscape, ponds should be considered a vital part of the landscape and require routine maintenance. One such maintenance requirement is managing aquatic vegetation, and if not routinely controlled can get out of hand quickly and can be costly in the long run.

The first step in adequately managing aquatic plants is carefully identifying and understanding the ecology and importance of the plant in the ecosystem. Most plants are essential to the ecosystem and play a vital role in productivity; however, some may enter the system and become abundant rather quickly and outproduce wanted plants and become unsightly. Aquatic plants that cause weed problems are split into algae, floating, emergent, and submerged plants.

- **Algae** are the most popular group of plants found in ponds. Their shape and size differ from microscopic single- or multiple-celled to branched plants that resemble submerged aquatic plants.
- **Floating plants** can float on the water's surface, and their exposed roots can obtain nutrients from water rather than soil.
- **Emergent plants** are rooted in the bottom of the pond. They have stems, leaves, and flowers that extend above the water surface. They primarily occur on the shoreline and in shallow water around the pond's edge.
- **Submerged aquatic plants** grow primarily under and up to the water surface. Most of these plants have flowers and seed heads that extend above the water's surface.

Now that we know what types of plants are out there, we need to explore some management ideas to control aquatic plants. One easy way to manage a pond is to contact a local pond management company and set up a monthly management plan, and troubles are few. The company will set up a plant control plan and perform necessary chemical applications to control the growth of plants. They may offer other alternatives that may benefit the pond's long-term enjoyment.

Now, if you are a DIY person and what to build some strategies on your own, here are some preventive measures to help. Management techniques can be based on mechanical, chemical, and biological means to help prevent the overgrowth of aquatic plants in a pond.

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## UPCOMING EVENTS

### Longleaf Pine Management Series

Landowners attend both sessions and field tour:  
 July 20th- Ridgeland from 9am - noon  
 August 17th- Walterboro from 9am - noon  
 September 24th- Field Tour- Jasper County from  
 9am - 3pm

To register- <https://tinyurl.com/longleaf2022>

Contact Janet Steele for more information-  
 jmwatt@clemson.edu

### Chainsaw Safety and Handling Workshop

October 14th- Columbia

October 28th- Clemson

Workshops run from 9am - 3pm

Contact Janet Steele for more information-  
 jmwatt@clemson.edu

### Tree Felling Workshop

September 30th- Clemson

November 18th- Columbia (for Women Owning  
 Woodlands)

Workshops run from 9am - 3pm

Contact Janet Steele for more information-  
 jmwatt@clemson.edu

### The Woods in Your Backyard

Workshop designed for landowners with 10 acres  
 or less.

For professionals- Sept. 22nd in Columbia

For landowners- Oct. 15th in Greenville

Workshops run from 9am - 3pm

For more information, contact Carolyn Dawson-  
 dawson4@clemson.edu or Janet Steele- jmwatt@  
 clemson.edu

### Women Owning Woodlands Workshop

In person introductory workshop in Williamsburg  
 County this fall. Contact Janet Steele for more  
 information- jmwatt@clemson.edu

### Forestry Association Meetings

Check out Page 2 to find your local forestry  
 association. You do not need to own land in that  
 county to join. Many of these associations meet  
 quarterly and cover a lot of great topics for forest  
 landowners.

### CFE Opportunities:

You can find a list of current CFE opportunities at  
 this website:

[https://www.clemson.edu/extension/forestry/  
 continuing\\_education/index.html](https://www.clemson.edu/extension/forestry/continuing_education/index.html)

### More Events:

You can find a list of more events at this website:

[https://www.clemson.edu/extension/forestry/events.  
 html](https://www.clemson.edu/extension/forestry/events.html)

**Check out our blog page for past  
 articles and other great forestry  
 and wildlife information-**

[blogs.clemson.edu/fnr](https://blogs.clemson.edu/fnr)

## Managing aquatic weeds in ponds cont.

Mechanical removal is the most expensive and physical way of removing plants from a pond. This can be done by cutting the unwanted plants with a cutter and then raking in the loose plant matter. The most important advantage of the mechanical method is that the vegetation is immediately removed from the water column, which helps with water quality. Removing the vegetation from the pond means no decaying organic matter to cause drops in dissolved oxygen, leading to a fish kill. A significant disadvantage includes the disposal of plant matter from the bank. If large quantities are collected from the pond, this usually means hauling off large masses in motorized vehicles. Other disadvantages include the ineffective removal of portions of the vegetation and the dispersal of vegetative fragments that may take root elsewhere.

Using EPA-approved chemical herbicides is probably the most effective means of controlling the excessive growth of aquatic plants in a pond. The initial step to controlling plants with herbicides is correctly identifying the aquatic plant and deciding how much of the plant matter is to be removed from the pond. After careful identification, an aquatic herbicide can be selected for use. Please read and follow label recommendations precisely as with all pesticides because labels can change; by law, the label is the final legal document on herbicide application.

According to the label, proper handling and use of herbicides pose no threat to the environment or human health. Aquatic herbicides are easy to use and offer safe, quick responses to controlling the specific aquatic plant. Using herbicides instead of mechanical control can be

cheaper, and less labor is needed to remove the aquatic plant from the pond.

The best remedy for biological control is the triploid grass carp. Grass carp are considered herbaceous and can feed on various plant matter, and being triploid, they cannot reproduce. Identifying the aquatic plant is still necessary to see if grass carp is a long-term solution to the excess growth of aquatic plants in the pond. Grass carp are a popular choice in adding biological control because they can consume their body weight in vegetation in a single day, are more aggressive in consuming the foliage when they are young, and grow to more than 50 pounds. Grass carp feed mainly on soft-stemmed submersed aquatic plants and are recommended primarily to control these aquatic plants. The pond owner chooses to stock grass carp; some things should be considered initially. Grass carp should be stocked at 10 to 12 inches to reduce predation if more prominent bass reside in the pond. Emergency spillways should be screened and protected so that the grass carp are not allowed to escape.

The most cost-effective methodology for aquatic plant control combines two or more management strategies into an integrated effort. Herbicides and mechanical removal should be considered a temporary fix. Control duration can range from a few weeks to several months, depending on the herbicide selection and the plant species. However long, control can be achieved by combining recommended control methods such as using the proper herbicide applications followed by triploid grass carp stocking.

## County Forestry Associations

**Abbeville County  
Forest Landowners Association**  
Contact: Stephen Pohlman  
spohlma@clermson.edu

**Darlington/Florence  
Landowners Association**  
Contact: TJ Savereno  
asavere@clermson.edu

**Laurens County Forest  
Landowners Association**  
Contact: Jeff Fellers  
fellers@clermson.edu

**Salkehatchie Forestry Association  
(Allendale, Bamberg and Barnwell)**  
Contact: Janet Steele  
jmwatt@clermson.edu

**Aiken County  
Forestry Association**  
Contact: Janet Steele  
jmwatt@clermson.edu

**Edgefield County  
Forestry Association**  
Contact: Stephen Pohlman  
spohlma@clermson.edu

**Lexington County  
Forestry Association**  
Contact: Janet Steele  
jmwatt@clermson.edu

**Saluda County  
Forestry Association**  
Contact: Stephen Pohlman  
spohlma@clermson.edu

**Anderson Forestry &  
Wildlife Association**  
Contact: Carolyn Dawson  
dawson4@clermson.edu

**Greenville Forestry &  
Wildlife Society**  
Contact: Carolyn Dawson  
dawson4@clermson.edu

**Lowcountry Landowners Association  
(Beaufort, Colleton, Hampton,  
Jasper)**  
Contact: Janet Steele  
jmwatt@clermson.edu

**Sumter County Forest  
Landowner Association**  
Contact: Ryan Bean  
rbean@clermson.edu

**Calhoun-Orangeburg  
Forest Landowners Association**  
Contact: Janet Steele  
jmwatt@clermson.edu

**Greenwood County  
Forestry Association**  
Contact: Stephen Pohlman  
spohlma@clermson.edu

**McCormick County  
Forestry Association**  
Contact: Stephen Pohlman  
spohlma@clermson.edu

**Tri-county Forestry Association  
(Berkeley, Charleston, Dorchester)**  
Contact: Parker Johnson  
pdjohns@clermson.edu

**Chesterfield County  
Forestry Club**  
Contact: Ryan Bean  
rbean@clermson.edu

**Kershaw County Forest  
Landowner Association**  
Contact: Ryan Bean  
rbean@clermson.edu

**Newberry County  
Forestry Association**  
Contact: Jeff Fellers  
fellers@clermson.edu

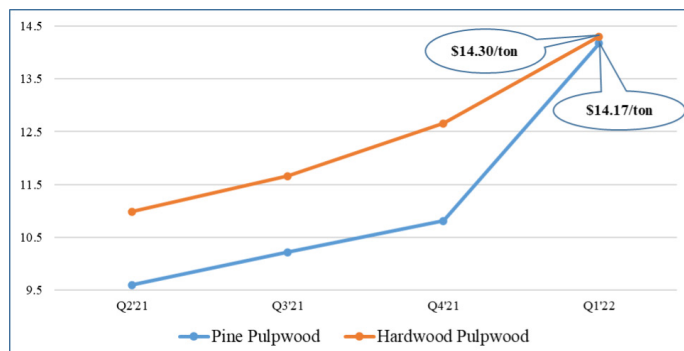
**Williamsburg County  
Forest Landowners Association**  
Contact: Parker Johnson  
pdjohns@clermson.edu

**Contact the Association nearest to you to find out about upcoming meetings!**

# South Carolina stumpage price trends and southern yellow pine basics

By Puskar Khanal

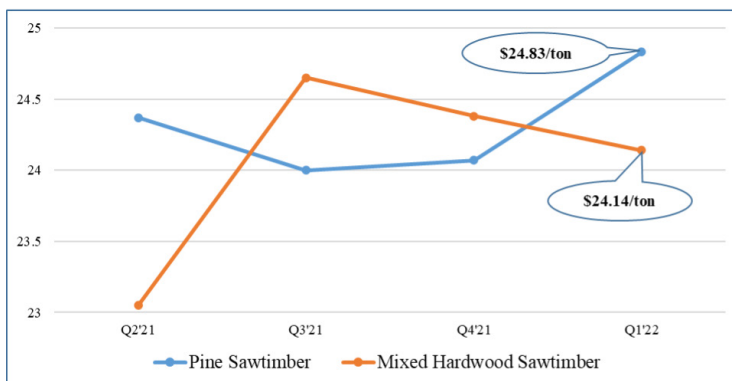
**Stumpage Price Trends:** In the first quarter of 2022 (Q1'22), statewide pulpwood stumpage prices for both pine and hardwood continued an increasing trend that started in the second quarter of 2021 (Q2'21). The statewide pine pulpwood stumpage prices, on average, were \$14.17/ton, which is a jump of 31% on a quarter-over-quarter basis and 34% on a year-over-year basis. Similarly, the statewide hardwood pulpwood stumpage prices, on average, were \$14.30/ton, which is an increase of 13% on a quarter-over-quarter basis and 10% on a year-over-year basis. Some market analysts have attributed early rainfall events that would limit wet-weather timber harvesting as one of the reasons for the recent upward trend this year. Average pulpwood prices for both pine and hardwood in South Carolina have been performing relatively better than the long-term averages for the U.S. South. Click for the regional average graphs – <http://www.timbermart-south.com/prices.html>.



Graph of SC Pulpwood Prices from Q2'21 to Q1'22.  
Puskar Khanal, Clemson University.

On average, statewide sawtimber stumpage prices in South Carolina were \$24.83/ton for pine and \$24.14/ton for hardwood trees in the first quarter of 2022 (Q1'22). The average pine sawtimber prices increased about 3% on a quarter-over-quarter basis while it increased over 5% on a year-over-year basis. Unlike pine sawtimber, the mixed hardwood sawtimber prices decreased about 1% on a quarter-over-quarter basis and had a 2% decline on a year-over-year basis. As shown in the figure below, sawtimber stumpage prices have recently fluctuated between highs and lows. Still, they have failed to gain from a recent surge in market prices for lumber and improving housing trends even if there has been an increase in sawmill production and lumber demand across the U.S. The stumpage market has been in an oversupply situation for quite some years.

Unlike average pulpwood stumpage prices across the South, both pine and hardwood sawtimber prices in South Carolina have been consistently lower; in particular, hardwood stumpage rates are significantly lower. South-wide regional averages for the hardwood sawtimber have been about \$30/ton since 2014, but the statewide averages for South Carolina failed to reach that level during this



Graph of SC Sawtimber Prices from Q2'21 to Q1'22.  
Puskar Khanal, Clemson University.

period. This disparity with regional trends indicates that South Carolina's stumpage market has some unique characteristics and subregional contexts.

## Southern Yellow Pine Basics

**Question:** *What is Southern Yellow Pine? Why are there no individual price rates for different southern pines (ex. longleaf, shortleaf, or loblolly)?*

I recently received this interesting question about southern pine trees and have included this brief note

to explain its market environment in this newsletter. I assume some of you might have heard the word SYP and wanted to know more about it.

All southern pines comprise a unique wood category and receive a standard stumpage price in the market. The main reason for considering all pines as a single commodity includes their properties and use primarily in residential and commercial construction. The word "Yellow Pine" refers to several pine species with similar wood strength and growing environment requirements. It is a blanket term that refers to a group of pine trees. In the Southern U.S., it refers to the four most common pine trees (Longleaf, Shortleaf, Slash, and Loblolly), while Jeffery or Ponderosa pine comprises this group in the Western region. Southern Yellow Pine is grown over 190 million acres from Texas to Virginia. While grading lumber, they are collectively referred to as "Southern Pine" or "Southern Yellow Pine (SYP)." These fast-growing pine trees produce unique wood in terms of strength, weight, impact resistance, and use. After treating with chemical preservatives, SYP logs are used for piling, utility poles, and decking. Likewise, a large amount of SYP is used for making pulpwood, plywood, and engineered wood products. SYP wood is produced in several grades and board sizes based on specific log characteristics such as knots, checks, and splits that determine its relative strength and appearance.

Data credit: The sawtimber and pulpwood price data included in this newsletter are published with permission from TimberMart-South Athens, GA 30605 email: [tmart@timbermart-south.com](mailto:tmart@timbermart-south.com).

## Quail in a quandary

By TJ Savereno

With a lot of recent interest in bringing back the northern bobwhite quail, conversations with landowners often turn to reflections on bygone days. They recall working fields with bird dogs alongside their fathers and/or grandfathers and flushing numerous coveys within a few hours. Others reflect on simply hearing the whistling of cocks in the spring and the covey calls in fall. This leads to speculation on the reason for the rapid and dramatic decline of the species, especially in the past fifty years. Two of the most likely culprits frequently put forth as suspects are the coyote and red imported fire ants. Several diet studies of coyotes looking at stomach contents reveal that quail, either in the form of adults or eggs, make up only a very minor component of their diets. In fact, many quail biologists believe that coyotes may actually benefit quail by controlling populations of mesopredators, such as raccoons, armadillos, skunks, and opossums, which are much more efficient nest predators than coyotes. The verdict on fire ants is less clear. They can negatively impact quail in several ways. First, they may overwhelm and kill newly hatched or pipping chicks that have not yet become mobile and able to escape. The risk of this is dependent on the proximity of the nest to an ant mound. The second negative impact of fire ants is more indirect. In areas with large concentrations of fire ant mounds, insects and other invertebrates may be significantly reduced in numbers. These invertebrates are essential to quail hens for egg development due to their high protein content. They are also extremely important to rapidly growing chicks for the same reason. So while fire ants appear to have a negative effect on bobwhite quail, the impact varies with site and weather conditions and cannot alone account for the drastic decline of bobwhite quail numbers across its range. We must look elsewhere for an explanation.

Most people are familiar with the saying, “A chain is only as strong as its weakest link.” Wildlife biologists take a similar approach when evaluating the factors that may affect a species’s population. All wildlife species have various habitat requirements. In the most basic form, these are food, water, shelter, and space. Suppose an area has the water, shelter, and space required by a species but lacks sufficient food resources. In that case, wildlife biologists recognize food as the weakest link, also referred to as the “limiting factor.” If we address that lack of food through habitat improvements and food increases, the wildlife population should now grow until it reaches a level where something else, maybe shelter, becomes the limiting factor, and so on.

Through years of studies and management efforts, it has become evident that the limiting factor for the northern bobwhite is the lack of nesting and brood-rearing resources. The bobwhite is a grassland/scrub species. They nest in the dried native bunch grasses from the previous year’s growth and rear their brood in areas of forbs (flowering, broad-leaved plants) where insects

are abundant. These areas must be near denser cover, such as blackberry and plum thickets, where the birds can find refuge from predators, heat, torrential rains, and other negative factors.



Male northern bobwhite quail. Photo Credit: TJ Savereno, Clemson Extension.

So what do these resources look like, and where have they gone? Why are they limited? As with most things, there is no single answer. One of the drivers has been changes in agricultural practices over the past 60 years. Farms and fields used to be smaller. Fencerows, hedgerows, and ditches were more numerous. Unproductive field borders near treelines were not planted, leaving grassy buffers between fields and forests. Little odd corners or portions of fields where planting and harvesting equipment could not easily navigate were left fallow, although they may have been occasionally mowed, disked, or burned to prevent trees from encroaching. The few available herbicides were expensive, so ditch banks and their edges were allowed to grow up, again with occasional manual maintenance to prevent woody encroachment. These areas tended to be dominated by native warm-season grasses, such as little bluestem, broomsedge, and yellow Indiangrass, which quail used for nesting. Flowering forbs, such as ragweed, partridge pea, native lespedezas, and beggar lice not only attracted insects so important for hens and chicks but also served as a source of nutritious seeds later in the season.

Another force that historically created habitat beneficial to quail was the widespread use of prescribed fire in pine woodlands. Prescribed fire keeps hardwoods from encroaching and allows sunlight to reach the forest floor. This promotes the beneficial grass and forb understory.

So what changed? First and foremost would be the direct loss of habitat due to farmland and forest converting to other uses, such as residential and commercial development. In the United States, farm area declined from 449,268,645 ha in 1964 to 373,158,947 ha in 2007. Another large factor is additional habitat loss due to the intensification of agricultural activity. Over the same time period of 1964 through 2007, the amount of land on individual farms planted for crops increased from 39.1% to 44.1%. Smaller fields with more edge habitat were combined into larger fields with less edge. Fields were expanded from treeline to treeline. Though yields immediately adjacent to trees may not offset input costs due to shading, changes in soil type, and competition for water and nutrients. The surge in numbers and production of less expensive herbicides led to the use of

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## Quail in a quandary Cont.

those chemicals to maintain ditches, removing additional cover and food sources previously used by quail in these travel corridors. At the same time, the efforts of decades of public fire suppression campaigns and the concern over liability issues led many to abandon prescribed fire as a management tool. This, combined with poor timber thinning management, resulted in overstocked timber stands where sunlight cannot reach the ground. This results in ecological deserts devoid of resources to support quail and other wildlife.

The loss of grassland habitat as the limiting factor for northern bobwhites is strengthened by the corresponding decline in other birds in the grassland guild, such as eastern meadowlarks, grasshopper sparrows, field sparrows, and loggerhead shrikes. The 2019 Breeding Bird Survey found that approximately 720 million grassland birds (53%) have been lost since 1970, more than any other guild of birds. This includes a loss of 3 in 4 eastern meadowlarks.

The picture is not all bleak, though! Conservation efforts across the northern bobwhite range show that habitat creation and restoration does bear fruit in the form of

increased numbers of quail and other grassland birds. If you build it, they will come. Some of the things you can do include: leaving a 30 ft buffer around agricultural fields and allowing native grasses and forbs to grow. Establish herbaceous filter strips along ditches and pond margins to filter runoff and remove sediment and chemicals before entering the water. Provide quail with travel corridors. Plant brood patches of partridge pea and ragweed in non-productive or difficult-to-work areas that may otherwise be mowed. Thin densely stocked pine stands and introduce prescribed fire to prevent hardwood encroachment. Also, implement integrated pest management to reduce the amount of pesticides that impact beneficial insects along with target species.

There are many other practices that you can employ to benefit quail and other grassland species. Many of these are eligible for cost-share and technical assistance through the Farm Bill administered by the US Department of Agriculture. Talk with your local Natural Resources Conservation Service and Farm Service Agency for more information. You can also get more information from your local Clemson Extension Forestry and Wildlife Agent.

## Clemson helping create more comfortable environment for female forest owners

By Stephen Bradley

Sandy Kumm, of Tamasee, South Carolina, got involved with Women Owning Woodlands for the specific reasons indicated within the organization's name: she's a woman who owns woodlands — in this case, specifically intended for wildlife habitation.

During a recent WOW event in Clemson involving a workshop on chainsaw use, Kumm said she found the instruction ideally suited for her purposes.

“The workshop provided me the opportunity to learn chainsaw safety, operation and maintenance, as well as what type of saw was best suited for my needs,” Kumm said. “Together with the lecture, practical training and an invaluable manual, I left the class with the knowledge and confidence in selecting a saw for my purposes; how to operate and maintain the saw; and can now accomplish small jobs safely by myself.”

And such training is exactly the kind of foundational learning WOW hopes to provide.

WomenOwningWoodlands.net is a national collaborative project of the National Woodland Owners Association (NWOA) and the USDA Forest Service, Cooperative Forestry Office, and Clemson Extension Area Forestry/Wildlife Agent Janet Steele and Clemson University Post-Doctoral Associate Molly Darr started the South Carolina chapter in 2019.

More than 11 million owners make decisions about private

forested land in the United States that will have an impact on more than 420 million acres, 58 percent of the nation's total forestland.

In the United States, 58 percent of the nation's family forest ownerships with at least 10 acres of forestland also have at least one female owner. Within the single-owner population of landowners, women are the sole owners of and primary decisionmakers for 31 percent of ownerships.

“This is certainly the case with the folks that we work with in South Carolina, and I believe on a national scale too — what ends up happening a lot is that, historically or traditionally, the women in these families will be kind of left out of the conversation of land management,” Darr said. “It will usually be the husbands and the sons who take care of that, and a lot of times what will happen — or what we've found in South Carolina especially — is that the husband will die and his wife will be left with the land, and she won't have any idea what to do with it or how to get the best value out of it.”

And data from the 2013 iteration of the U.S. Forest



Clemson Assistant Professor of Forest Operations Patrick Hiesel offers instruction on chainsaw safety during a workshop late last year in Clemson. Photo credit: Stephen Bradley, Clemson University.

## Clemson helping create more comfortable environment for female forest owners cont.

Service's National Woodland Owner Survey supported those statistically significant differences between male and female landowners: female owners are more likely to have inherited land, particularly from a spouse, whereas male respondents were more likely to manage for wildlife, have a commercial timber harvest and have undertaken management activities in the past five years.

Thus, while there are considerable similarities between the attitudes and behaviors of female and male owners, the differences are important in understanding constraints and barriers and must be considered in the design of forestry programs and outreach.

Darr said she has also spoken with women whose fathers own the property and they are next in the line of succession, seeking to feel a sense of ownership with the forestland that will one day be their own.

"It doesn't matter if they want to manage it for timber or hunting or recreation or ecological purposes, what I've learned from these women is that it's difficult to jump all-in and say, 'I want a piece of this. I want to have some sense of ownership,' if you don't even have the vernacular to start," Darr said.

And certainly, a chainsaw is one piece of equipment where there is plenty of vernacular that must be understood. With that in mind, Clemson Assistant Professor of Forest Operations Patrick Hiesl delivered the workshop late

last year in Clemson with a focus on laying a foundation.

"What we found in the literature is that women are more likely to get hurt working on farms, working with chainsaws or heavy equipment in general, because they typically do not work as much with it as, historically, their male counterparts," Hiesl said. "The literature also indicates that women are more likely to attend workshops if



Grant funds from the South Carolina Sustainable Forestry Initiative Implementation Committee were awarded in June 2021 and allowed for the purchase of a variety of chainsaws and safety gear for the workshops. Photo credit: Stephen Bradley, Clemson University.

they are single-gender, and so far, we have seen that in our evaluation responses too."

Hiesl said the primary idea behind this particular workshop was to provide women with the skills needed to clean up storm wood if a tree falls and blocks access to their farm or property.

"If you look into the literature, it clearly shows that

we have a shift in forest ownership happening from traditionally male to more and more women, whether they buy their own land or inherit forest land," he said. "So, we wanted to get ahead of the curve and start training this new, emerging group of forest owners."

The workshop was designed to educate either first-time users of chainsaws or those with very little experience and included education on both chainsaw safety and maintenance.

"What we teach is at a very basic level, and rightly our focus is on personal protective equipment, safely handling chainsaws to avoid hurting themselves and making sure they know all the safety features on the saw, the safety clothing they can wear and how to safely handle and then safely cut trees or logs into smaller sections so that they can move them away," Hiesl said. "So, it's on a very basic level, but also a very efficient level to show them certain cuts to really make their lives easier to safely handle the saws and reduce the strain on their body."

The first three WOW chainsaw workshops being offered in the state were funded with a grant from the South Carolina Sustainable Forestry Initiative (SFI) Implementation Committee. The grant funds were awarded in June 2021 and allowed for the purchase of a variety of chainsaws and safety gear for the workshops.

"The S.C. Sustainable Forestry Initiative Committee is proud to support the S.C. WOW Network to engage, educate, and support female woodland owners in the state," South Carolina SFI Implementation Committee Chair Catherine White said.

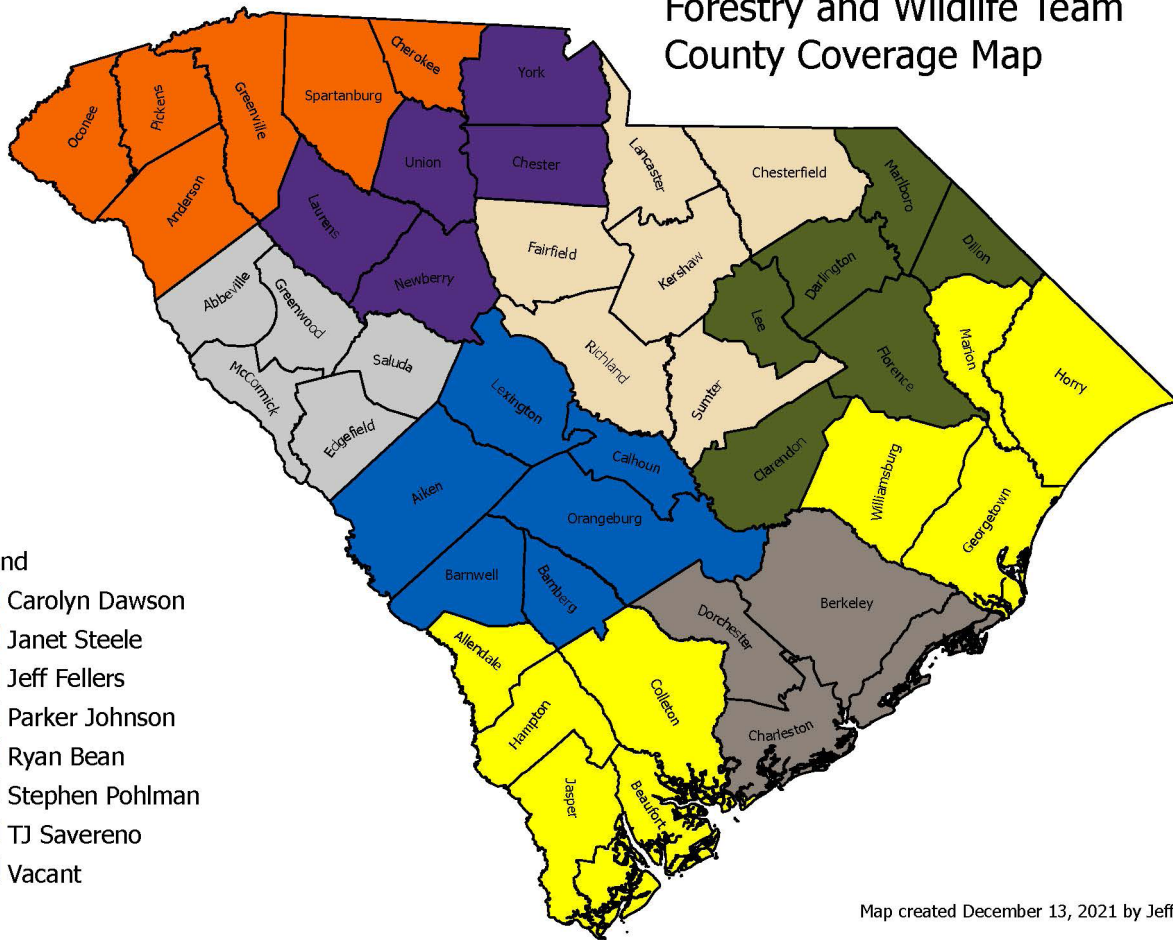
According to the latest data from the US Forest Service National Woodland Owner Survey, there are an estimated 4 million family forest ownerships (with 10+ acres) across the U.S. Approximately 20 percent of these ownerships have a woman as the primary owner.

Darr said this makes the presence of WOW even more valuable in support of this emerging and growing group of forestland owners.

"It can be kind of intimidating if you go to a male-dominated space," Darr said. "It's not a negative thing, but it can be kind of hard if you're the only woman in the room to speak up and say, 'What do you mean by cruising timber?' So, this creates a more comfortable environment for these women. They can come and show up and talk to other women who have been through it. We really try to teach them the very basics through all the programming that we do."

<https://news.clemson.edu/clemson-helping-create-more-comfortable-environment-for-female-forest-owners/>

## Forestry and Wildlife Team County Coverage Map



### Agent

Ryan Bean  
Carolyn Dawson  
Jeff Fellers  
Parker Johnson  
Derrick Phinney  
Jaime Pohlman  
Stephen Pohlman  
TJ Savereno  
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### Background

Forestry, Cost Share Programs, Prescribed Fire, Soil Types  
Forestry, Conservation, Forest Health, Firewise  
Forestry, Geographic Information Systems  
Wildlife Management  
Forestry, Biomass, and Bioenergy  
Natural Resource Education, 4-H  
Forestry, Thinning, Hardwood Valuation, Food Plots  
Wildlife Management, Native Vegetation, Invasive Species  
Forestry and Wildlife, Ownership Transition, Longleaf Pine Management

### Specialist

Dave Coyle  
Cory Heaton  
Puskar Khanal  
Marzieh Motallebi  
Stephen Peairs

### Background

Forest Health and Invasive Species Specialist  
Wildlife Management Specialist  
Forest Economics Specialist  
Ecological Economics and Carbon Credits Specialist  
Forestry, Silviculture, and Hardwood Management Specialist

Newsletters are archived online at:  
<https://www.clemson.edu/extension/forestry/newsletter/index.html>

Newsletter edited by Jaime Pohlman and reviewed by Janet Steele

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College of Agriculture, Forestry and Life Sciences

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