## **FLORIDA LAND STEWARD**

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## **Integrate Brood Cover into your Forest Management**

By Dr. Marcus Lashley, University of Florida IFAS Dept. of Wildlife Ecology and Conservation

for More Productive Wild Turkey Populations

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UNIVERSITY of FLORIDA



















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Many Florida landowners are interested in supporting robust turkey populations. There is one key habitat component that is usually the limiting factor on turkey productivity - poult rearing cover. For those of you who have listened to the Wild Turkey Science podcast, you know this isn't just a common limitation in Florida, but has been identified as a limiting factor to turkey populations across the south. In fact, studies from Tennessee, South Carolina, and North Carolina indicate that high quality brood rearing cover is only a few percent of the available landscape in those states. This is likely the case in many places in Florida. Thus, using management practices that increase the availability of brooding cover may be your best bet to increase turkey productivity on your property. In this article, I am going to describe key elements of brood cover, why it is often missing, and a few areas where you can produce it.

#### What does brood rearing cover look like?

There are a few key characteristics to high-quality brood rearing cover. Poults, especially in the first two weeks after hatching, need a particular structure and composition in vegetation communities to be successful. A forb-dominated community (e.g., common ragweed, partridge pea, beggar's lice, etc) is important for several reasons. First, forbs tend to support high insect production and the insects are accessible to poults in these communities. Second, forbs

originate from a single stem and produce an umbrella of cover. This structure is important because it provides adequate space at the ground level for small poults to navigate, but also overhead cover that protects them from exposure to the elements and aerial predators.

Another critical component of poult rearing cover is bare ground underneath the forbs. Poults are most vulnerable in the first two weeks of life because they cannot yet fly or regulate their body temperature. The bare ground is important because it allows poults to forage under the canopy of forbs where they are safe from predators and exposure and they can avoid getting wet. Think about walking through a patch of grass on a late spring morning, your feet will get wet! It is okay for some native clump grasses (e.g., bluestems, Indiangrass, broomsedge, etc.) however, the coverage should be less than 50% grass and none of that grass should be a sod-forming grass like bahaigrass or common Bermuda.

#### Why is brood cover missing?

There are two key reasons why brood cover is limiting on the landscape. One, much of the early succession has been converted to alternative land uses such as improved pasture (Listen here for detailed discussion on land use changes that have affected turkey productivity, https://sites.libsyn.com/453219/ has-turkey-habitat-changed-21).

Continued on next page

Integrate Brood Cover into your Forest Management for More Productive Wild Turkey Populations....continued from previous page







(Left and Center) A critical component of poult rearing cover is bare ground underneath forbs. (Right) using prescribed fire in thinned forest stands can be another key way to produce high quality brooding cover.

While improved pasture can be desirable for some objectives, unfortunately the structure of these grasses is not conducive to poult rearing during the first few weeks of life. That does not mean that you won't see older poults, hens, and even strutting gobblers frequent these pastures, they are just not productive for poults during early brood rearing. If you are seeing poults in pastures, they are already past that critical early poult rearing stage (i.e., they are too small to see when the above-described cover is critical).

A second important reason that poult rearing cover is limiting is lack of fire on the landscape. Fire does a few important things that promote high quality brood cover. Fire limits encroachment of woody species, promotes desirable grasses and forbs and the associated structure, and removes the thatch layer exposing bare ground. Unfortunately, without fire, forest stands quickly transition into conditions that do not promote poult success.

## Where can you provide poult rearing cover?

There are three key areas where most landowners can provide brood rearing

cover: pastures, prescribed fire in thinned stands, and food plots.

#### Pasture

If you own pasture, some portions of that area could quickly be converted to high quality brooding cover. Whether it is that odd pasture, an odd portion of a pasture, field borders along the pasture's edge, or even the shoulders of widened roads, killing the pasture grass with herbicide combined with disking or burning can quickly provide dividends. Importantly, this is not an all or none deal. A couple of acres here and there, or a 20-yard-wide field border can go a long way towards increasing productivity. The most common error I see in this approach is to "let the pasture grow up" to allow better cover. While this is better than closely mowed or grazed pasture, it still is not conducive to early poult rearing. Remember, it is not just about having a forb community but also bare ground underneath those forbs. If you can see grass or thatch under the forbs, you are not there yet! (For step-by-step advice on converting pasture grass into native forb communities see this video, https://www.youtube.com/ watch?v=qlM8LnTByk8&t=2s)

Prescribed fire in thinned forest stands

Using prescribed fire in thinned forest stands can be another key area to produce high quality brooding cover. In open forest conditions (i.e., >30% sunlight penetration), the structure of understory vegetation can provide high quality brooding cover in the same year as fire and in many cases the year after fire as well. Luckily, Florida is the prescribed fire capital of the world and so, prescribed fire is a commonly accepted and utilized tool across the state. This may explain why turkey populations are stable in this state despite population declines in others. It certainly explains the relatively abundant northern bobwhite populations! The common problems in these stands are related to inadequate sunlight penetration, woody encroachment, and invasive species such as cogongrass.

#### Food plots

Some adjustments to cool-season food plot management can also pay dividends. There are a few key considerations. First, choose cool-season plantings that wilt in early spring and allow for colonization of

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When planning food plots, choose coolseason plantings that wilt in early spring and allow for colonization of native forbs.

native forbs. I like a mix of crimson clover with a light rate of wheat or oats. This is a highly attractive deer plot during winter but then is very attractive to strutting gobblers in the spring before wilting and allowing native annual forbs to colonize. At this point, these plots produce pretty good brooding cover.

Many other common plantings for deer plots may be very attractive to deer but often do not provide the right kind of structure for poult rearing in late spring and early summer. Also, some care should be taken to deal with problematic weeds that colonize and render these plots unusable for brooding. Ryegrass, crabgrass, and goosegrass are common culprits. Use of herbicides are necessary to address these problems if they arise. If so, I would suggest planting crimson clover only. That will allow you to assess if you have a weed problem, anything that isn't clover in the fall and winter is a weed! This strategy also provides you with many herbicide options. A grass-selective herbicide during fall and winter for cool-season grasses like ryegrass or in early spring for warm-season grasses like crabgrass can be sprayed directly over the clover without harming it while providing strong control of the unwanted grasses. Once the problematic grasses are under control, the crimson cereal grain mix is the best compromise between deer plots and brood rearing cover. This mix may not be the best for your area, so more appropriate annual clover that wilt before broods hatch can be interchanged in those cases (For more information on plant option

in Florida see https://edis.ifas.ufl.edu/ publication/AG139).

#### Take home messages

Providing high-quality brooding cover can be an effective way to increase turkey productivity on your property. Pastures, field borders, road shoulders, thinned forests, and food plots can all provide brood rearing cover by using management strategies that promote desirable structure. Nonnative grasses are often problematic and require the use of herbicide to control. While poult rearing cover is often limiting on the landscape, and requires deliberate action to provide, it also is one of the quickest habitat components to respond to management. Since many of the desirable forbs are annual plants that colonize disturbed areas quickly, highquality brooding cover can often be created in the same year. For more information on this topic or turkeys in general, I encourage you to follow the Wild Turkey Science podcast. We discuss in detail the science behind wild turkey ecology and management including tips like the ones in this article to help you support robust turkey populations. Access the podcast at https://sites.libsyn.com/453219/ WildTurkeyScience.

#### **Check out the Online Forest Landowner Academy**



Are you new to forestry and land management? Have you recently purchased or inherited land and wondering what to do next? Are you involved with land management and could use a primer on forestry and stewardship concepts? The Forest Landowner Academy is for you!

Seven course modules cover a variety of topics on understanding your forest resources, developing your management plan, timber management, marketing forest products, other forest enterprises such as pine straw and hunting leases, wildlife management, and planning for the future.

The course is self-paced. Each module includes pre-recorded content from the field or virtual classroom, supplemental reading material, and an assessment where you can apply what you've learned to your land or situation. The cost of the course is \$150. Those completing the

course will earn a University of Florida Certificate.

For more information and to enroll in the Forest Landowner Academy visit the course page at https://ifas-sfrc-for.catalog.instructure.com/courses/for-fla

For more information, contact: Chris Demers at cdemers@ufl.edu, (352) 846-2375 or Dr. Michael Andreu, mandreu@ufl.edu

#### **New Landowner Assistance Program Available from Quail Forever Biologists**

By Nicole Itzkowitz, Quail Forever



Quail Forever is a non-profit organization dedicated to upland habitat conservation through habitat improvements, public access, education, and conservation

advocacy. We are excited to have Farm Bill Biologists in Florida providing technical assistance to landowners interested in improving the health of their land for wildlife, clean water, and other important natural resources. Biologists are available to assist landowners through the application process for USDA's Natural Resource Conservation Service (NRCS) Farm Bill programs.

Florida Quail Forever Biologist positions are supported through a partnership with USDA's NRCS Working Lands for Wildlife (WLFW) Northern Bobwhite, Grasslands & Savannas Framework and in cooperation with the Florida Fish and Wildlife Conservation Commission. We work to coordinate, promote, accelerate enrollment, and implement the conservation provisions of the Federal Farm Bill and other related wildlife conservation programs. We also aim to assist any federal and state government agencies, nonprofit organizations, and other entities on the implementation of voluntary USDA Conservation Programs.

Quail Forever (QF) Biologists will provide technical assistance to any landowner interested in managing wildlife habitat. There is no acreage minimum or land use requirements. Our focus is northern bobwhite quail and upland

habitats. However, we also assist with many other wildlife objectives, such as pollinator, deer, turkey, or gopher tortoise habitat. Technical assistance to private landowners includes answering wildlife management questions, working with landowners to identify habitat objectives and develop wildlife habitat management plans, and connecting them to resources and applicable programs, including NRCS programs such as the Environmental Quality Incentive Program and the Conservation Stewardship Program. NRCS practices identified to help northern bobwhite can be integrated into a landowner's management plan, including prescribed burning, field borders, forest stand improvement (thinning), prescribed grazing, conservation cover and brush management.

In assisting private landowners through the WLFW Northern Bobwhite Framework, we hope to maximize habitat and productivity on working lands to improve habitat connectivity across Florida's landscape. Some possible landowner benefits include more hunting and wildlife viewing opportunities, increased land productivity and revenue opportunities, improved risk management, and improved soil and water quality. Northern bobwhite quail are an indicator species, with their presence indicating healthy habitat suitable for a variety of other grassland birds and wildlife species. With that in mind, targeted bobwhite conservation can have a beneficial effect for both landowners and a suite of wildlife species.

Other duties of our Florida Farm Bill Biologists include monitoring, education, and outreach. We are currently working on WLFW outcomes assessment monitoring to estimate the effects of conservation practices, such as prescribed burning, on grassland birds. We aim to speak and present at several events this year, and we are working to host our own landowner focused field days and public education programs. Our biologists are passionate about northern bobwhite management but can speak on most conservation related topics to broad audiences.

Those interested in assistance can reach out to either of our Florida Quail Forever Biologists: Nicole Itzkowitz (nitzkowitz@quailforever.org) based in Kissimmee (Central Florida including Lake, Sumter, Seminole, Orange, Brevard and Osceola counties) or Katie Maddox (kmaddox@quailforever.org) based in Quincy (Gadsden, Leon, Jackson, Calhoun, Liberty, Wakulla, Jefferson, Madison and Hamilton counties). If you do not see your county listed, please contact the biologist closest to you.

More information on Farm Bill Biologists: https://quailforever.org/ BlogLanding/Blogs/Quail-Forever/ What-is-a-Farm-Bill-Biologist.aspx

Farm Bill Biologist directory:
https://pheasantsforever.org/get-doc/d68502f8-71ec-423c-a8a0-dbaf1e2851b2/Farm-Bill-Biologists.aspx

More information on Working Lands for Wildlife Northern Bobwhite Framework:

<a href="https://www.nrcs.usda.gov/">https://www.nrcs.usda.gov/</a>
<a href="programs-initiatives/working-lands-for-wildlife/northern-bobwhite">programs-initiatives/working-lands-for-wildlife/northern-bobwhite</a>

# **Sign up for Southern Pine Beetle (SPB) Prevention Program**

The Southern Pine Beetle Assistance and Prevention Program, supported through a grant by the U.S. Forest Service, provides incentive payments for landowners who have overstocked pine stands and need to conduct a first thinning. The program also offers partial cost reimbursement for activities that can mitigate southern pine beetle activity, such as prescribed burning,

mechanical underbrush treatments, and the planting of longleaf or slash pine rather than loblolly pine, the beetle's preferred species. The SPB Prevention Program includes 44 northern Florida counties in the known range of the southern pine beetle. Apply by June 9, 2023.

For details and an application, see the SPB Prevention Program Page at https://www.fdacs.gov/Forest-Wildfire/For-Landowners/Programs-for-Landowners/Southern-Pine-Beetle-Assistance-and-Prevention-Program.

#### **Forest Management and Stewardship Publication Round-up**

By Chris Demers, UF/IFAS School of Forest, Fisheries, and Geomatics Sciences

Over the last few years we have produced several publications for our UF/IFAS AskIFAS publication site. Below is a listing of recently released publications on forest management and stewardship available at no cost at https://edis.ifas.ufl.edu.

#### **Planting Southern Pines in**

**Florida:** This award-winning publication is a guide to facilitate selection of appropriate pine species and offers guidance on best practices for handling seedlings throughout all stages of tree planting. Access this publication directly at <a href="https://edis.ifas.ufl.edu/publication/FR456">https://edis.ifas.ufl.edu/publication/FR456</a>

## Florida Soil Series and Natural

**Community Associations:** Soils are a major factor determining natural communities. This publication provides Florida land managers an up-to-date, useful table that links soil series to potential natural community types. Access at <a href="https://edis.ifas.ufl.edu/publication/FR455">https://edis.ifas.ufl.edu/publication/FR455</a>

#### **Timber Inventory: A Primer for**

**Landowners:** This publication outlines the process of timber inventory, or cruising, from initial tree-level measurements to the final total stand-level estimates and various methods for conducting a timber cruise. Access at <a href="https://edis.ifas.ufl.edu/publication/FR426">https://edis.ifas.ufl.edu/publication/FR426</a>

**Bark Beetles:** We now have current publications on all the major bark beetles affecting southern pines and others. Find them all at <a href="https://edis.ifas.ufl.edu/entity/topic/bark\_beetles">https://edis.ifas.ufl.edu/entity/topic/bark\_beetles</a>

These recently produced publications are but a tiny handful of all available on AskIFAS. The full collection of forest management and stewardship publications can be browsed at <a href="https://edis.ifas.ufl.edu/entity/topic/forest\_management\_and\_stewardship">https://edis.ifas.ufl.edu/entity/topic/forest\_management\_and\_stewardship</a>. From there you can search for publications on just about every topic you can think of from apple snails to zoysiagrass.

### Don't miss out on news and events!

#### A LOT happens between quarterly issues of this newsletter!

Sign up for the regular Florida Land Steward email updates so you don't miss out on assistance and educational opportunities. Send an email to <u>cdemers@ufl.edu</u> to be added to the listserv. Email updates are sent once a week or every other week and include the latest calendar of workshops, tours, webinars, and other events; a link to the current issue of this quarterly newsletter; updates on cost-share and other assistance programs, opportunities, and resources; and other stewardship related news and information.

All the latest news and events are online at the new UF/IFAS Florida Land Steward Program web site: <a href="https://programs.ifas.ufl.edu/florida-land-steward/">https://programs.ifas.ufl.edu/florida-land-steward/</a>.

## TIMBER PRICE UPDATE

The timber price information below is useful for observing trends over time, but does not reflect current conditions at a particular location. Landowners considering a timber sale are advised to solicit the services of a consulting forester to obtain current local market conditions.

Average stumpage prices for the three major products in Florida, as reported in the  $\mathbf{1}^{st}$  **Quarter 2023** Timber Mart-South report were:

#### Florida Stumpage Prices

**Pine pulpwood:** \$15/ton, ↓ from 4<sup>th</sup> Qtr. 2022

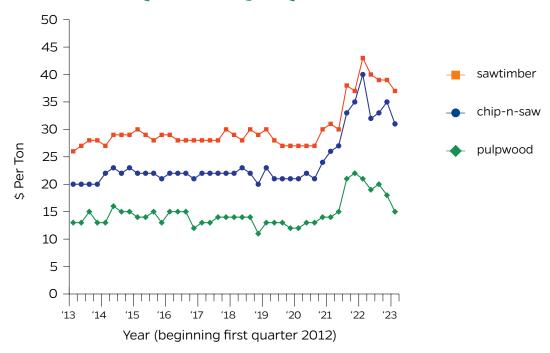
**Pine C-N-S:** \$31/ton, ↓

**Pine sawtimber:** \$37/ton, ↓

#### **Trend Report**

Average stumpage prices decreased for all major timber products in the first quarter of 2023, attributable to economic conditions that affected most product markets. Paper and paperboard production is down about 3% compared to 2022 levels. Market conditions for solid wood products were mixed in the first quarter. Residential housing starts are down a little but investments in home improvements are up considerably. Precipitation levels were above normal across the region this quarter and severe weather events were again more common. The first three months of 2023 generated a record number of tornados in the region, more than 450 according to the National Weather Service.

#### Average Pine Stumpage Prices for Florida (\$/Ton) 1<sup>st</sup> Qtr 2013 through 1<sup>st</sup> Qtr 2023



Timber Mart-South is compiled and produced at the Center for Forest Business, Warnell School of Forest Resources, University of Georgia, under contract with the Frank W. Norris Foundation, a non-profit corporation serving the forest products industry. See http://www.tmart-south.com/ for information on subscriptions.

## **CONGRATULATIONS**

## **CERTIFIED LANDOWNERS**

More information about certification in these programs is available at:

https://www.fdacs. gov/Forest-Wildfire/ For-Landowners/ Programs-for-Landowners/Forest-Stewardship-Program

https://www. treefarmsystem.org/ florida

https://myfwc.com/lap

These landowners have achieved certification in the Tree Farm, Forest Stewardship, and/or Wildlife Habitat Recognition Programs and demonstrate excellent stewardship of their land resources.



John Nash (center left) with FWC representatives L-R, Jason Hight, Ginger Feagle, and Tony Grossman, Levy County



Cara and Terry Smith, Levy County



James Cunningham, Lake County



Joe Harbison, Jackson County



Karen and Tod Sindel, **Escambia County** 



Kevin Guinn, Crones Cradle Preserve, Marion County



Reed and Christine Lorber with Jason Ballard (R), Marion County



Kate Boulos with Joe Vaughn, Levy County



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	Upcoming Events		
Date	Event, Location, Contact		
May 17	Madison County Landowner Cooperative Group Spring 2023 Meeting. 10:00 a.m. to 12:00 p.m. ET at UF/IFAS Extension Madison County, 184 NW College Loop, Madison, FL 32340. Please RSVP to Megan Ellis, Florida Fish and Wildlife Conservation Commission, Megan. Ellis@MyFWC.com, (352) 334-0311		
May 20	Jubilee Orchard Festival. 8:00 a.m. to 5:00 p.m. ET, Jubilee Orchards, 12008 Miccosukee Road in Tallahassee. Consumers, farmers, landowners, and community leaders are gathering at Jubilee Orchards for a showcase of land management practices, soil enhancement advancements and more. For further information contact: Bud Chiles, Jubilee, (850) 251-8317, Bud@Jubileeorchards.com, or Peter Kleinhenz, Tall Timbers, (850) 508-0777, Pkleinhenz@talltimbers.org. More details at https://talltimbers.org/articles/jubilee-festival		
May 23	Certified Pile Burn Training, Taylor County. 8:30 a.m. to 4:00 p.m. ET, UF/IFAS Extension Taylor County, 203 Forest Park Drive Perry, FL 32348. Provided by Florida Forest Service and UF/IFAS Extension. This course will train pile burners to burn brush piles legally, safely, and efficiently. \$50 fee covers lunch and materials. For more information contact Lisa Strange, lstrange@ufl.edu, (850) 838-3508. Registration at https://www.eventbrite.com/e/certified-pile-burner-course-tickets-611357265037		
May 23	Forestry Toolbox: Cost Share Programs and Forest Vegetation Management Workshop, Washington County. 8:00 a.m. to 12:00 p.m. CT, UF/IFAS Extension Washington County, 1424 Jackson Avenue, Chipley, FL 32428. Approved for 2.0 Pesticide Applicator CEU's available, SAF CFE and CLE credits pending approval. \$15 fee includes program and breakfast. See link above for details and registration.		
June 1	Hurricane Preparation & Recovery Webinar: Casualty Loss Tax Deduction and Determining Your Basis. 2:00 to 3:00 p.m. ET. Provided by UF/IFAS Florida Land Steward Program. This webinar will help you better understand casualty loss deduction and how to determine your basis. Presented by Dr. Tamara Cushing, Forest Business Specialist at UF/IFAS. Approved for 1.0 Cat. 1 SAF Continuing Forestry Education Credit. For more information contact Chris Demers, cdemers@ufl.edu, (352) 846-2375. Register at https://ufl.zoom.us/webinar/register/WN_ULwO214uRUKYJhJbrALUhw		
June 15	Hurricane Preparation & Recovery Webinar: Prepare for the Storm. 2:00 to 3:00 p.m. ET. Provided by UF/IFAS Florida Land Steward Program. Take some important steps to prepare your property for the next storm. Topics will include important resources, assessing risk, documentation, protecting property, and contacts to have lined up ahead of the next storm. For more information contact Chris Demers, cdemers@ufl.edu, (352) 846-2375. Register at https://ufl.zoom.us/webinar/register/WN_atsUhEUUQCG2d5B_Tvkw		
June 22	Hurricane Preparation & Recovery Webinar: USDA Disaster Recovery Assistance Programs. 2:00 to 3:00 p.m. ET. Provided by UF/IFAS Florida Land Steward Program and Florida partners in the USDA. This webinar will give a brief overview of the disaster assistance programs USDA Farm Service Agency offers, steps to take in advance to make the enrollment process as efficient as possible, and how to find your local USDA service center. SAF Continuing Education Credit pending approval. For more information contact Chris Demers, cdemers@ufl.edu, (352) 846-2375. Register at <a href="https://ufl.zoom.us/webinar/register/WN_nZCEXbAZRJKfRF2Ll0J-JA">https://ufl.zoom.us/webinar/register/WN_nZCEXbAZRJKfRF2Ll0J-JA</a>		

#### More events, webinars, webinar recordings, news, and information can be found at programs.ifas.ufl.edu/florida-land-steward

The Florida Land Steward Newsletter is joint project of the UF/IFAS Extension, Florida Forest Service, Florida Fish & Wildlife Conservation Commission, U.S. Fish & Wildlife Service, USDA Natural Resources Conservation Service and Florida Tree Farm Program:

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