



7 December 2023 Field Day Summary Notes – Caney Ranger District Target Audience: AR-LA CDN partners & Landowners

Discussion Focus: Applied forest management for priority wildlife and recreation

Where: Caney Ranger District (Kisatchie National Forest)

Hosted by: Arkansas-Louisiana Conservation Delivery Network (CDN) and US Forest Service.

Key Points from the AR-LA WGCP CDN field tour included:

- The weather was perfect for daylong presentations and discussions;
- Attendance was high (75 people participants) from the Arkansas-Louisiana Conservation Delivery network (CDN members, forest consultants, agency and organization personnel responsible for restoration and management).
- Experts explained managing open pine and shortleaf pine restoration.

Focus of the presentations, stops, and discussion centered around how to meet wildlife and resource objectives through non-traditional forest management, such as:

- Site suitability is key when planning and implementing conservation practices;
- Knowing your site's Ecological Site Description (ESD) and soil capabilities is essential;
- Use of the [Web Soil Survey](#) is recommended as a tool to identify soil properties;
- Prescribed fire is a critical management tool for restoration of plant communities;
- Strategic thinning and prescribed burns support Quail and Wild Turkey;
- Landowner goals are the foundation to plans which achieve desired results.

In 2023 the AR-LA CDN Steering Committee encouraged the establishment of more field days that would demonstrate our open pine management options. AR-LA partners responded by establishing our first Field Day on December 7, 2023. The USFS – Kisatchie National Forest and Caney Ranger District offered to host this Open Pine Management Field Day near Homer, LA.

The objectives of the 7 December Field Day were to

- showcase management of pine forests,
- showcase shortleaf pine restoration,
- discuss administration of timber sales,
- discuss management techniques supporting recreation,
- discuss prescribed fire planning,
- demonstrate the impacts of successful prescribed burns,
- and discuss other management practices to support open pine conditions that benefit priority wildlife species.

Prior to the field day, partners through the CDN expressly indicated their interest in discussing specific topics as follows:





- Soil Maps for planning;
- Shortleaf pine establishment and management through prescribed fire;
- How to focus management for quail and turkey;
- Management beyond shortleaf pine to include how to manage dense loblolly plantations to improve habitat for maximum wildlife benefit.
 - Management techniques such as mid-story management (TSI - mechanical and chemical), use of prescribed fire contractors, and fire prescriptions should be included in this topic.

Other points of interest included: grassland habitat restoration and management and mixed pine species plantings.

The Field Day was planned to emphasize the interest, challenges, etc. of managing for ecological pine species through silviculture, especially in relation to shortleaf pine and shortleaf pine-mixed hardwoods management. Special emphasis was requested/given to discuss thinning pine stands less than 25 years old to lower basal area for wildlife benefits. Specific Field Day Stops included:

Stop 1

- Soils drive site characteristics
- Soils maps are the best we have but not 100%
- Shortleaf pine suitability map shows where it is best to plant shortleaf in the WGCP (see shortleaf pine suitability map)
- Landscape associations within the WGCP are usually shortleaf on hills/drier soils, white oak/loblolly on terraces/mesic soils, bottomland hardwoods along river drainages in wet soils

Stop 2

- Shortleaf pine benefit from fire in the first 5 years of growth after replanting
- Fires should be a combination of backing fires and strip head fires
- Shortleaf pine bushes will eventually allow 1 leader to grow and dominate, forming the tree and won't be a bush anymore. Be patient.
- Shortleaf pine silvics should not be compared to loblolly for expectations, as it is its own tree species/ecosystem, which has merit of its own.

Stop 3 Lunch and open discussion

- Louisiana outdoors forever-new funds for fire in LA
- AGFC-new private lands habitat division
- PFW-funds for priority projects benefitting T&E species





- PBAs- landowners helping landowners get fire on the ground
- NRCS Act Now LA- forestry fund pool and others being considered for Act Now. Project will get immediate funding if it reaches ranking threshold.

Stop 4

- Management produces wildlife effects (see bird community with/without fire handout).
- Herbicide effects should be considered in various management scenarios. Timing, application method, and rates can all be adjusted to produce the desired effects on undesirables without as much harm to desirable vegetation.
- Open pine bird community has specific habitat needs to be considered if bird management is a priority (see habitat suitability index handout).
- There are potential economic tradeoffs when managing for open pine wildlife habitat within a production forestry landscape (see pine economics foregone income example). These tradeoffs are highly variable, site specific, and dependent on the level of management attained.
- Wildlife objectives should be measured and planned based on wildlife science.
- Management (including target basal area and all other metrics) should be based on landowner objectives, should include consideration of the conditions supported by the site, and the landowner should generally be made aware of tradeoffs without conservation partners getting into specific timber profit/loss income discussions. Ultimately, landowner objectives dictate where management actions fall along the continuum of facilitating commercial production and optimal wildlife habitat.

NRCS provided a wonderful summary of the field tour in their monthly newsletter [Louisiana NRCS Conservation Update](#). See below or click for the online version.





Currently, when you're thinking about trees, it's likely of the Christmas variety. Although, we're sure we could have a very lively discussion about all the aspects of choosing and decorating trees for the holiday, we would much rather focus on a discussion of how to manage your land and trees to reduce fuel and the threat of wildfires, improve water quality, and provide a home for birds, and butterflies, and snakes (OH MY!).

NRCS has been working on these issues and recruiting landowners for some time. In addition to our agency efforts to address these resource concerns, we take advantage of partner relationships through our [Open Pine Landscape Restoration Regional Conservation Partnership Program \(RCPP\)](#) to broaden our reach and multiply our conservation efforts. Arkansas NRCS leads the Open Pine RCPP and the [American Bird Conservancy](#) is the lead partner.

We recently joined fellow conservationists for a forest management field day hosted by the [Arkansas-Louisiana Conservation Delivery Network \(CDN\)](#) and the [US Forest Service](#). The Caney Ranger District of the Kisatchie National Forest provided a gorgeous backdrop for learning about open pine management options. With a goal of boosting the knowledge and skills of conservationists and planners in providing technical assistance for forest management, experts shared their thoughts on shortleaf pine restoration, administration of timber sales to support recreation, prescribed fire





planning and impacts of successful burns, and other practices to support open pine conditions that benefit priority wildlife species.

Our hosts packed a tremendous amount of information into the day – too much to recap here. Some key takeaways included:

- Consider suitability when planning and implementing conservation practices.
- Knowing what type(s) of soil you have and working with it instead of against it will lead to greater success of your overall plan. [Web Soil Survey](#) is an excellent tool to help identify your soil properties.
- Prescribed fire has a place in forest management but needs to be considered carefully – fuel hazards, age of trees, weather conditions, impacts on soil and beneficial plants and bugs.
- Periodic thinning and prescribed burns help maintain native grasses, wildflowers, and shrubs that encourage Northern Bobwhite Quail and Eastern Wild Turkey to move in and stay.
- Landowner goals need to be considered carefully when developing plans to achieve desired results.

We came away from the field day with a wealth of knowledge and ideas. We also came away with the overall theme that forest management, much like Christmas tree choices and decoration preferences, is best achieved according to the landowner's conservation needs and goals in mind.





Interested in learning more about forest management, NRCS programs, or the Open Pine Landscape Restoration Regional Conservation Partnership Program?

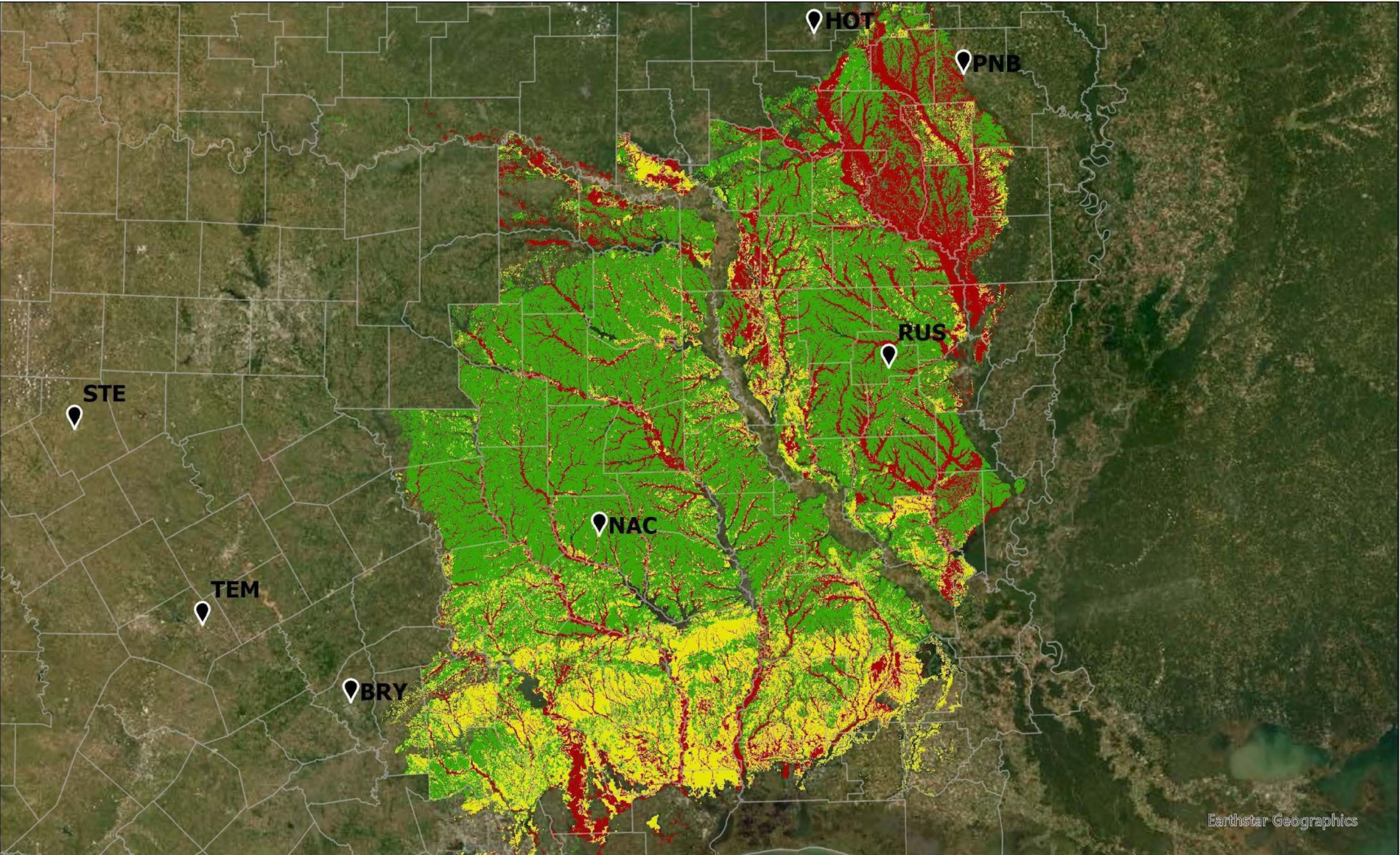
Contact your local NRCS office: <https://www.nrcs.usda.gov/contact/find-a-service-center?state=22&county=>

The AR-LA Conservation Delivery Network Open Pine Landscape Restoration Partnership: <https://www.lmvjv.org/ar-la-rcpp>

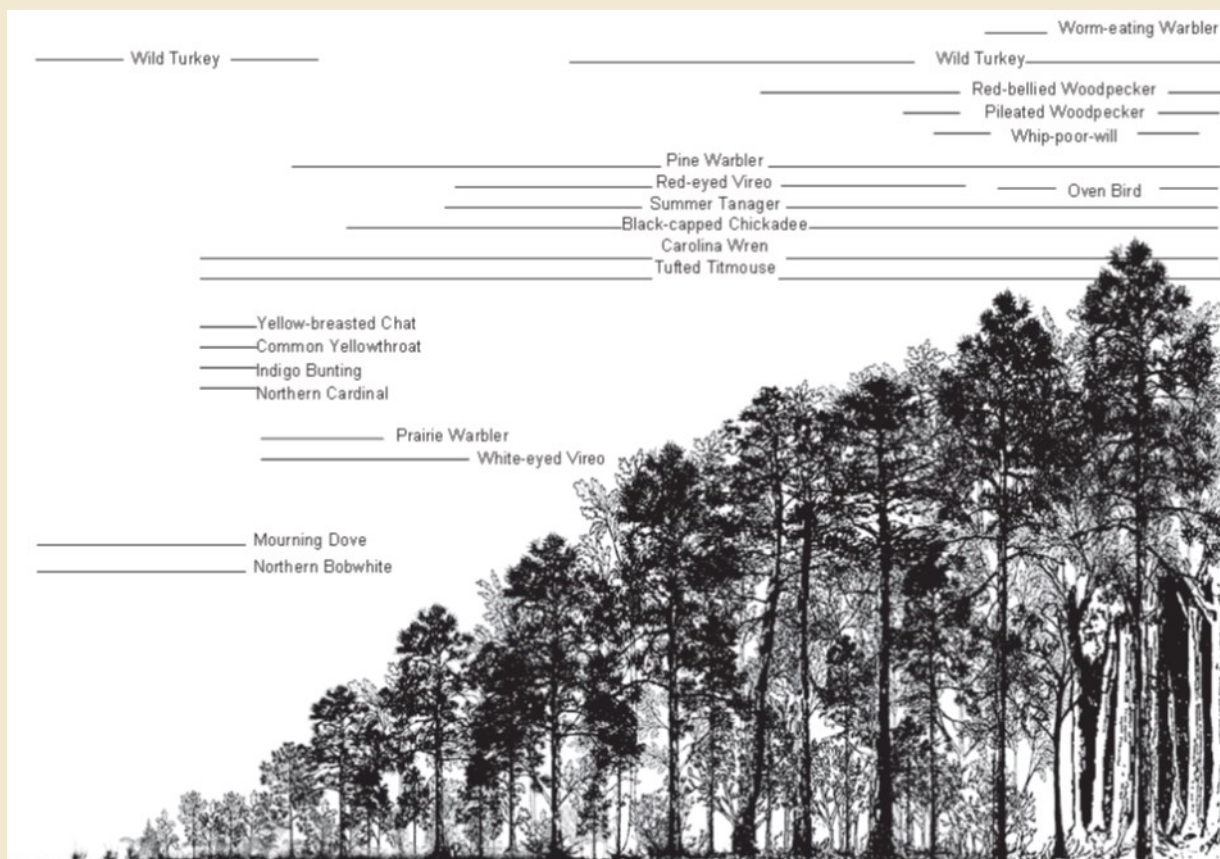
US Forest Service: <https://www.fs.usda.gov/>



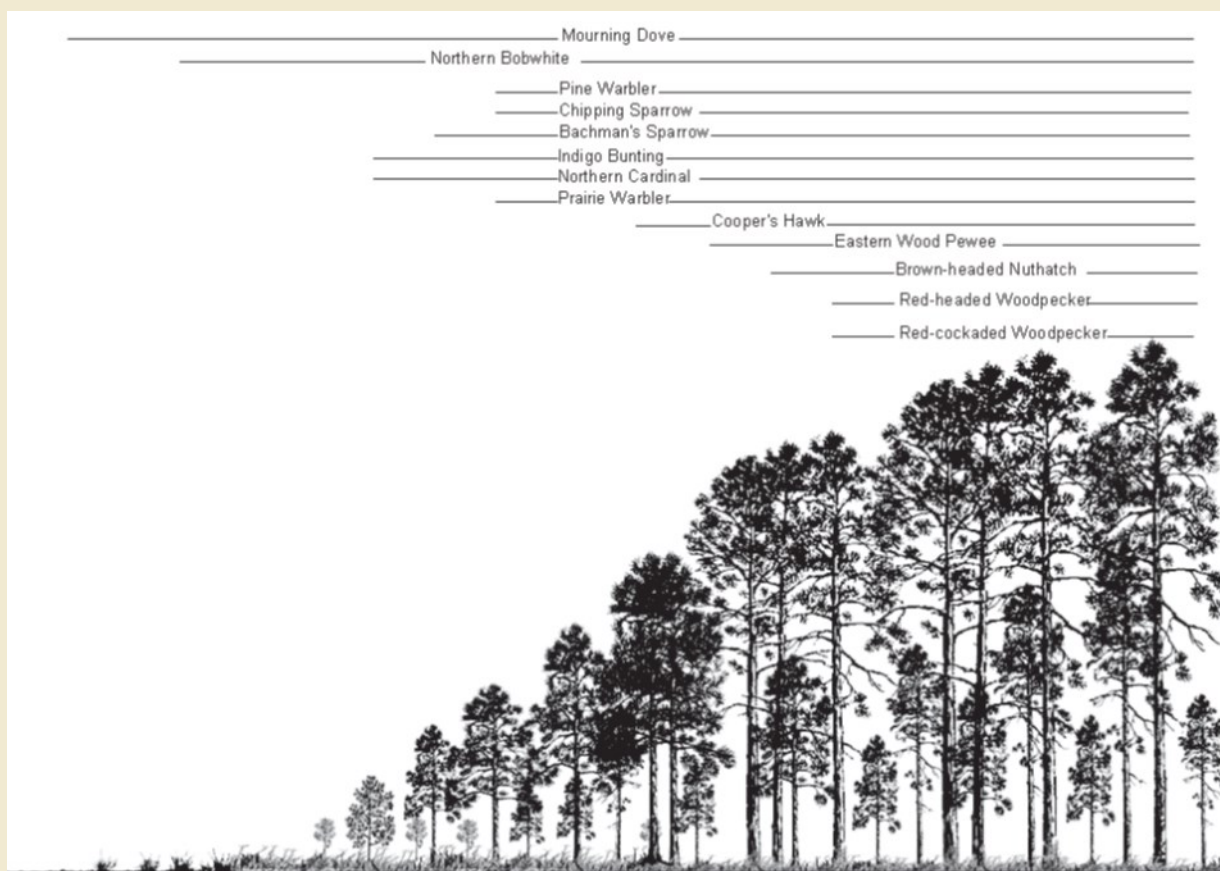
Shortleaf Suitability – Soil Survey



Bird Community Succession Without Fire



Bird Community Succession With Fire



Pine Thinning:

The current stand's inventory is: 220 Trees per acre
 120 square feet of basal area per acre
 10 inches is average stand diameter
 36.6 Tons per acre

Current stand value is: \$292.80 per acre at \$8.00 per ton for pine pulpwood

Normal stand reduction (thinning) to 80 square feet of basal area/acre:

Thinned stand inventory is: 150 Trees per acre, remain after thinning
 80 square feet of basal area, remain after thinning
 10 inches is average stand diameter
 25 Tons per acre remaining after thinning

 11.6 Tons removed
 \$92.80 per acre, value of normal thinning

Thinning pine stand to address wildlife concerns: Open pine thinning

Thinned stand inventory is: 110 Trees per acre, remain after thinning
 60 square feet of basal area, remain after thinning
 10 inches is average stand diameter
 18 Tons per acre remaining after thinning

 18.6 Tons removed
 \$148.80 per acre, value of trees removed

Value of Harvested Trees from a thinning of 80 square feet of basal area to 60 square feet of basal area.

7 additional tons removed to get the open stand condition
\$56.00 per acre, value of the 7 tons

From Mark S. Parson, EQIP Specialist Washington D.C.

Estimated income foregone means an estimate of the net income loss associated with the adoption of a conservation practice, including from a change in land use or land taken out of production or the opportunity cost associated with the adoption of a conservation practice.

Even if an incremental value of timber value could be calculated because of practice implementation, there is no guarantee that such timber would ever make it to merchantable harvest and a future loss of value. There is no guarantee that the crop will ever be harvested, and if not harvested, then the agency has potentially made an inappropriate payment (improper?) for loss value that does not take place.

The pine stand in 10 years:

The 10-inch diameter trees grew at 4% for 10 years and the trees average diameter in 10 yrs. is 14 inches.

The 14-inch trees are now sawtimber size instead of pulpwood, 14" tree has 85 Board Ft. of wood

Future volume of the normal thinning that left 150 trees per acre:

Volume of 150 trees:	12.75 thousand Board Feet or
	100.72 Tons.

Future volume of the Open Pine thinning with 110 Trees per acre.

Volume of 110 trees:	9.35 thousand Board Feet or
	73.86 Tons.

Difference between 80 and 60 BA future harvest in tons:	26.86 Tons
---	------------

Future Value of 40 trees taken out 10 years early: (The 40 additional trees removed to reach the 60 BA level)	\$752.08 (26.86 tons X \$28/ton)
--	----------------------------------

The present value of the Opportunity Income	\$461.71
---	----------

(Present value of 752.08 discounted at 5%)

Money received to thin the 40 additional trees	\$56.00
--	---------

Income Foregone: \$405.71

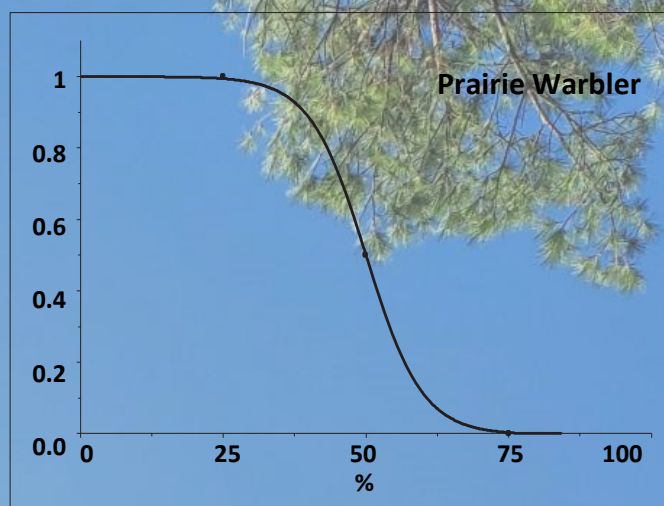
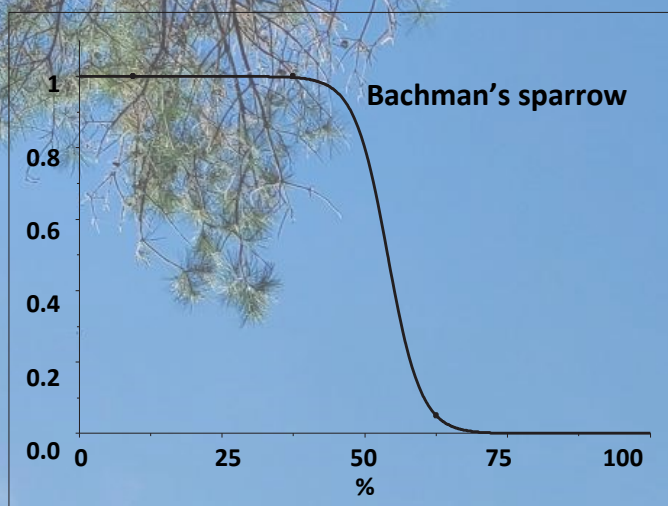
The foregone income is the value given up creating the desirable wildlife habitat by opening up the stand, by removing additional trees that would not be taken in a normal thinning and management regime.

****There is a difference between leaving some trees for a conservation practice that may not make it to merchantable value which was the scenario presented in 2014. The scenario presented here is that trees are removed and the value they would have accrued as they got larger is not possible because they were removed to create wildlife habitat for species in need of the open pine stand conditions.

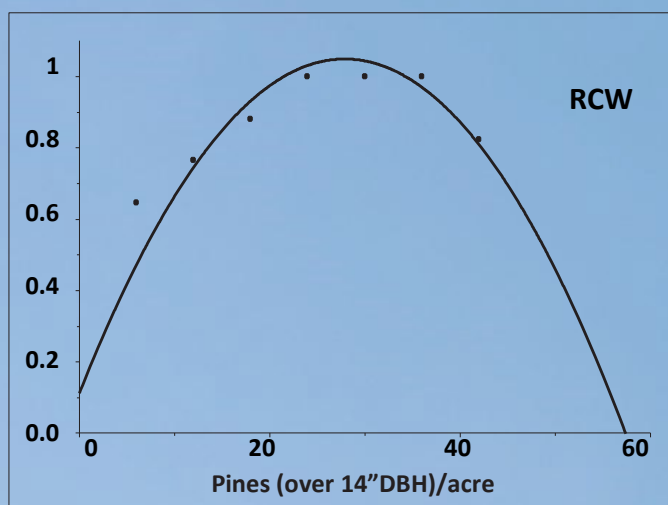
Habitat Suitability Indices for Open Pine Priority Birds

HSI is a numerical index that represents the capacity of a given habitat to support a selected species. HSI is represented on a scale of 0 to 1 with 1 being optimum habitat and 0 being least suitable habitat.

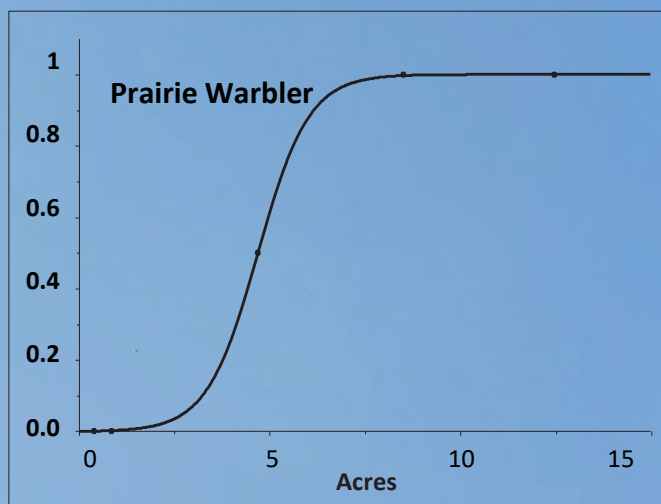
Canopy Cover



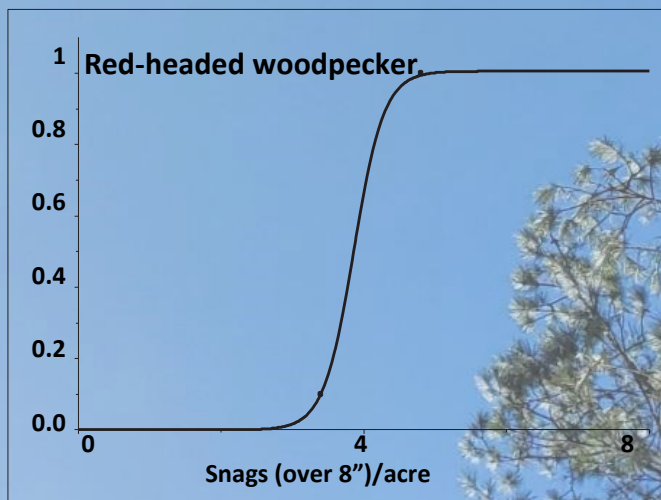
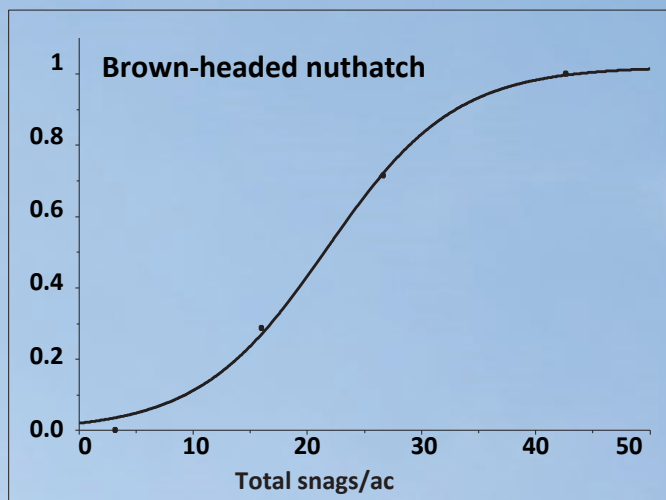
Large Diameter Pines



Patch Openings



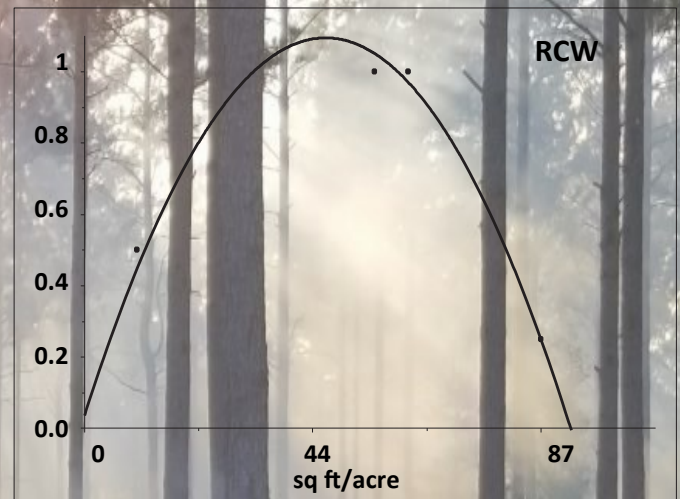
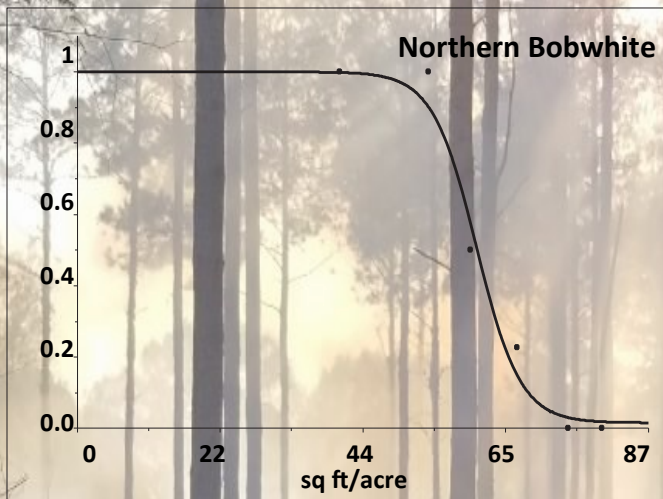
Snags



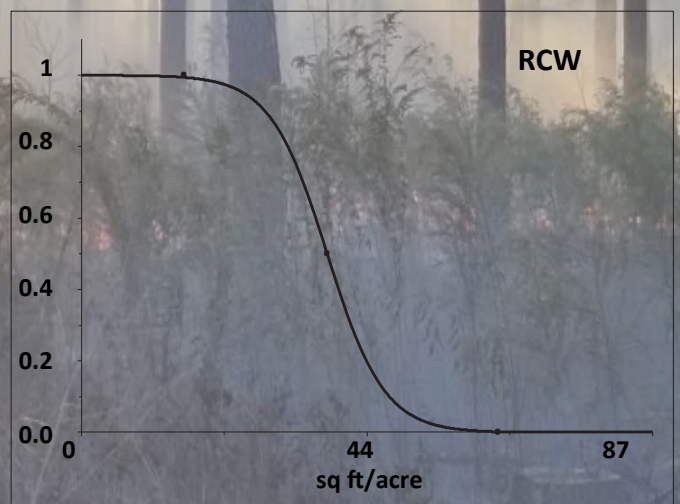
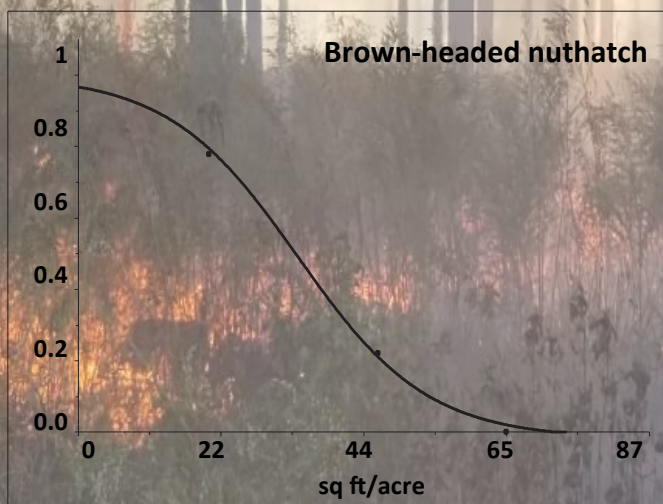
Habitat Suitability Indices for Open Pine Priority Birds

HSI is a numerical index that represents the capacity of a given habitat to support a selected species. HIS is represented on a scale of 0 to 1 with 1 being optimum habitat and 0 being least suitable habitat.

Pine Basal Area



Hardwood Basal Area



Ideal Conditions

- Canopy Cover less than 40%
- Between 20 and 40 Pine trees >14" DBH per acre
- Patch openings in early successional habitat at least 7.5 acres each
- 40 Snags per acre over 1" DBH and 4 snags per acre over 8" DBH
- 25-55 sq feet per acre of pine basal area