

An Introduction to North Carolina's Statewide Red-cockaded Woodpecker Safe Harbor Program



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Terms



- **RCW** = Red-cockaded woodpecker.
- **Cluster** = the aggregation of cavity trees previously and currently used and defended by a group of RCWs.
- **Potential Breeding Group** = An adult male and female that occupy the same cluster.
- **Take** = Any action (e.g., hunting, trapping, collecting) that will harm an endangered species. This includes habitat destruction and alteration.

Southeastern U.S. Woodpeckers



1. Red-cockaded woodpecker
2. Hairy woodpecker
3. Downy woodpecker
4. Pileated woodpecker
5. Red-bellied woodpecker
6. Red-headed woodpecker
7. Yellow-bellied sapsucker
8. Northern flicker
9. Ivory-billed woodpecker

- from Thomas M. Imhof's "Alabama Birds"



Red-cockaded Woodpecker



- Endemic to southeastern U.S.
- An endangered species since 1973.
- Excavates cavity in live pines.
- Prefers longleaf pine
 - red heart fungus
 - high sap flow
- Cooperative breeder.
- Keystone species.
- Feeds mostly on insects.



Male RCW, Camp Pretty Pond, Brunswick County, 2011

RCW Status



- **Why are RCWs endangered?**

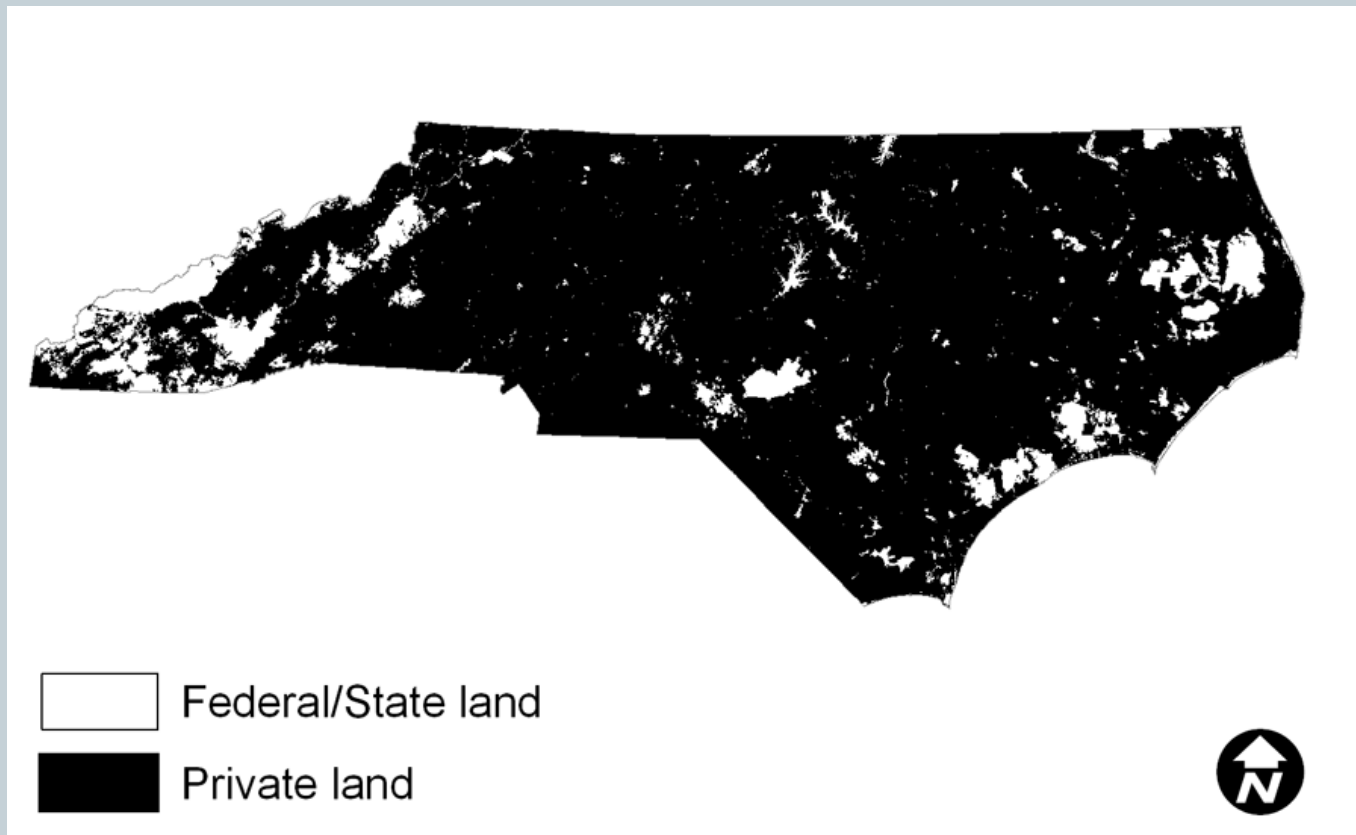
1. Cavity competition,
2. Predation,
- 3. Habitat loss**
 1. Shortened rotation
 2. Development
 3. Conversion
 4. Fire suppression
 5. Catastrophic events



North Carolina – Land ownership



- 10.5% of land in NC managed by government



Endangered Species Act (ESA)



- Section 2 of the ESA states that:

Encouraging interested parties to develop and maintain conservation programs is a key to safeguarding the Nation's heritage in fish, wildlife and plants.

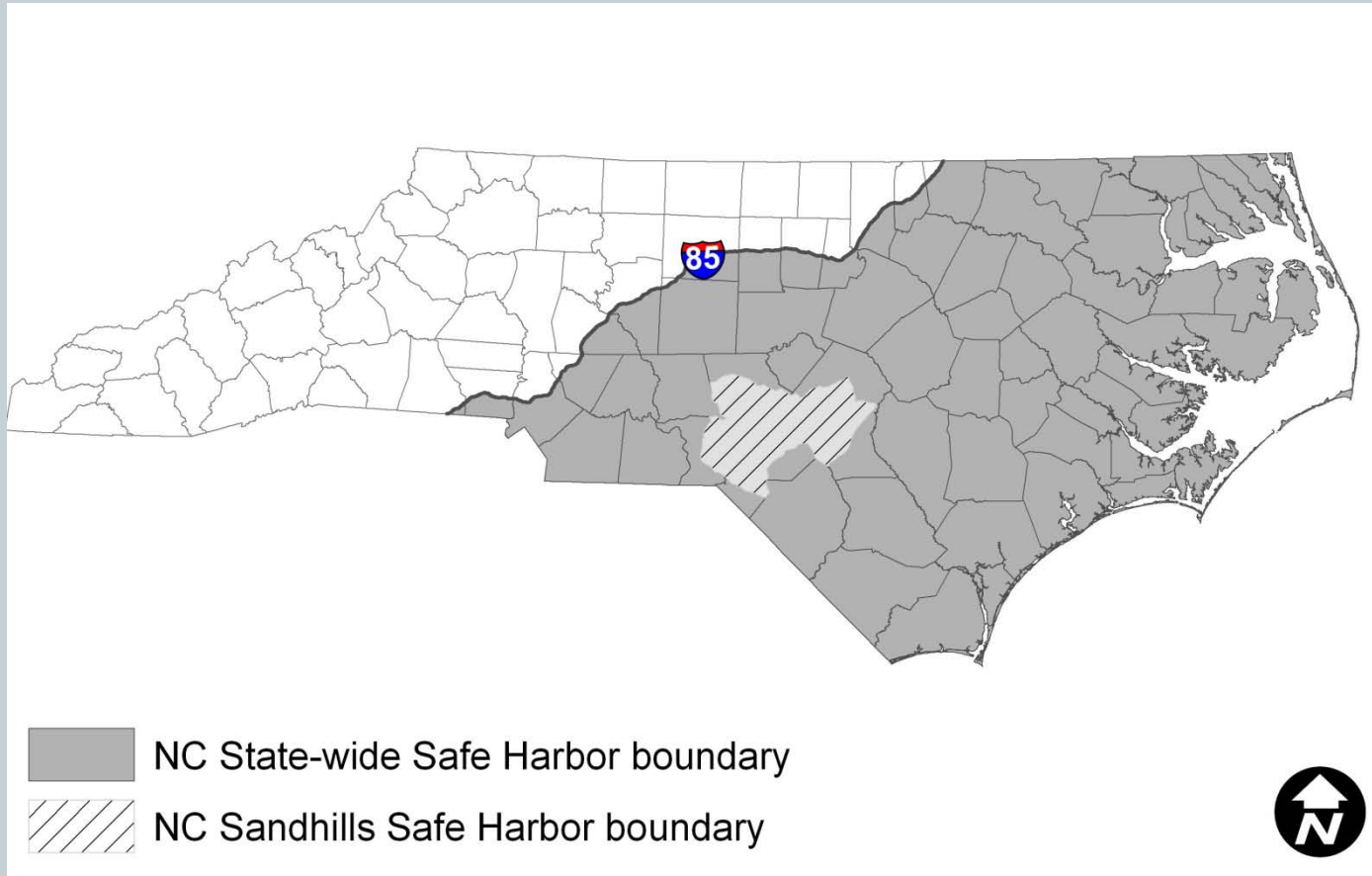
- A safe harbor agreement recognizes that:

People who do good deeds shouldn't be punished for doing them.

State-wide Safe Harbor Boundary



- October 2006



Safe Harbor Agreement – Purpose



1. Provide a *net conservation benefit* to RCWs in NC,
2. Provide Safe Harbor Assurances to non-federal property owners in NC

Net conservation benefits include:

1. Maintaining currently occupied nesting and foraging habitat,
2. Increasing RCW populations through installation of artificial cavities,
3. Enhancing, restoring, or creating suitable RCW habitat.

Safe Harbor - Enrollment



- Property must currently be, or have the potential to be, an ***upland pine environment***.
- Owner must agree to beneficially manage for RCW habitat on their property.
 1. Prescribed fire
 2. Forest management
 3. Hardwood midstory control
 4. RCW cavity installation
 5. RCW population management
 6. Future conservation measures

Conservation Strategy/Measures



- **Prescribed fire**
 - On a regular or recurring basis (preferably every 1 to 5 years)
- **Forest management**
 - Increased timber harvest rotations
 - Uneven-aged silvicultural treatments
- **Hardwood control**
 - Fire, mechanical, or chemical
- **Cavity installation**
 - Inserts or drilled + restrictor plates
- **Population management**
 - Translocation



Cavity insert

Baseline Considerations



- **Baseline:**
 1. Number of active clusters, and
 2. Amount and quality of foraging habitat
- Property owner is responsible for determining their RCW baseline.
- **Zero baseline when:**
 1. Pine or pine/hardwood <50%
 2. < 30 years old
 3. No RCWs within 0.5 mile

➤ No further assessment of the property is required.

Baseline Considerations



- **Baseline > 0 when:**
 - You have RCWs on or within 0.5 mi. of your property.
- If suitable nesting habitat is on your property, **surveys must be performed** to determine number of active clusters.
 - **Suitable habitat:**
 1. Pine/mixed stands >60 yrs.,
 2. Pine/mixed stands <60 yrs. but with clumps of trees >60 yrs.,
 3. Mixed stands >60 years adjacent to pine/pine-hardwood >30 yrs.,
 4. Pine stands w/ sawtimber including clumps of trees >60 yrs.

Managing for Stability



- Federal land owners manage **to increase**, whereas private landowners manage **to stabilize**.
- Requires that each active red-cockaded woodpecker cluster be provided foraging habitat of at least:
 - 3000 square feet of total pine basal area on a minimum of 75 acres*
 - in stands having the following attributes:

Managing for Stability



- 1) Pine stands must be at least 30 years old.
- 2) Average pine basal area of pine trees \geq **10 inches in diameter** at breast height is between **40-70 ft²/acre**.
- 3) Pine stands have **no hardwood midstory** or if a hardwood midstory is present, it is less than 7 feet in height.
- 4) The total stand basal area, including overstory hardwoods, is less than **80 ft²/acre**
- 5) Recommend majority of foraging habitat should be within **.25 mile** of the cluster.
- 6) Recommend stands counted as foraging habitat be within **200 feet** of another foraging stand or the cluster itself.

RCW habitat



RCW habitat



Not RCW habitat



Not RCW habitat



Benefits for RCWs



- ***Beneficial actions*** by private landowners will:
 - 1) Slow, stop, or reverse RCW declines
 - 2) Maintain habitat integrity
 - 3) Buffer against catastrophic events
- ***Favorable habitat conditions*** will persist for many years

Benefits for Private Landowners



- **Protection:**

- Relief from additional ESA responsibilities
- Provides protection for neighbors

- **Flexibility:**

- Right to modify or withdraw from agreement
- Able to change land-use in future
- Authorized take of above baseline responsibilities

Safe Harbor Agreement – Benefits



1. Limit the impact of insect outbreaks (e.g., pine tip moth and southern pine beetle),
2. Increase the health and merchantability of their pine trees,
3. Make themselves more likely to receive cost sharing to implement proper longleaf pine habitat management,
4. Create ideal recreational and hunting conditions (e.g., bobwhite quail),
5. Protecting other rare plant and animal species associated with longleaf pine ecosystems



Pine
barrens
tree frog



Rough-
leaved
loosestrife



Fox
squirrel

NC State-Wide RCW Safe Harbor Agreement



- Thanks to Susan Miller (USFWS) for sharing slides.

Questions?

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