

Small Game & Wild Turkey Committee

Meeting Agenda



September 29, 2020 1:00 – 3:00 p.m.

**Commission Room/Zoom Meeting
Centennial Campus, Raleigh**

Welcome/Open Meeting

- Public Lands Quail Management Area Update
- Wild Quail Mgmt. Areas Rule Review
- Update on Grouse Issues and Management
- Update on Turkey Research

John Stone

Brian McRae

Brad Howard

Chris Kreh

Chris Kreh

Additional Topics

John Stone

Adjourn

GAME LAND QUALITY QUAIL MANAGEMENT AREA



Chris Jordan, Game Lands and Forest Resources Manager
John Lovette, GIS Specialist



Goal

- To increase abundance of bobwhite quail on a Game Land to provide high-quality hunting opportunities



Objective

- Quail population density of 1 quail/acre



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Action Item from February meeting

- Conduct a parcel search in Wayne, Lenoir, Pitt, Davidson, Randolph, and Chatham counties for a property greater than 5,000 acres and conducive to quail management

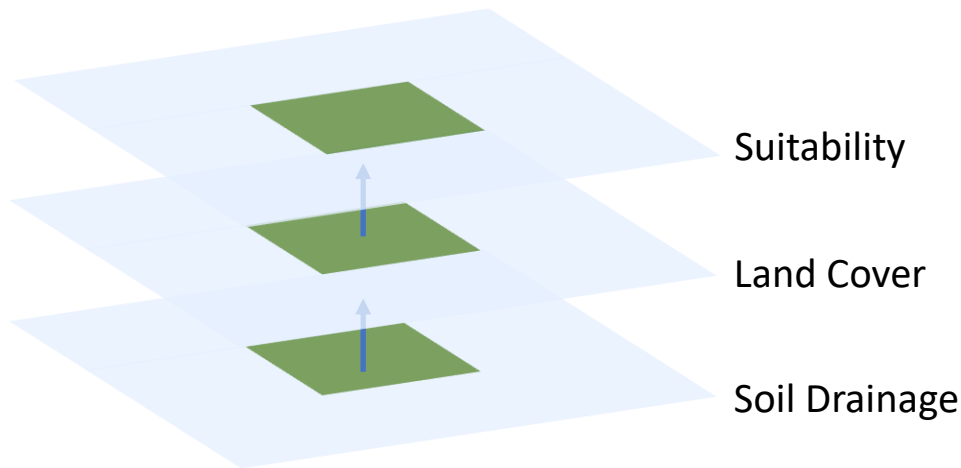


GIS Process

- Searched ~5.5 million parcels in NC for potential quail habitat acquisition
- To consider:
 - Size
 - Land cover
 - Soil drainage
 - Is not in Federal or State ownership
- Checked land cover and soil drainage within potential parcels



To calculate Suitable Acres within a parcel, we counted area that met our suitability criteria for both Land Cover and Soil Drainage



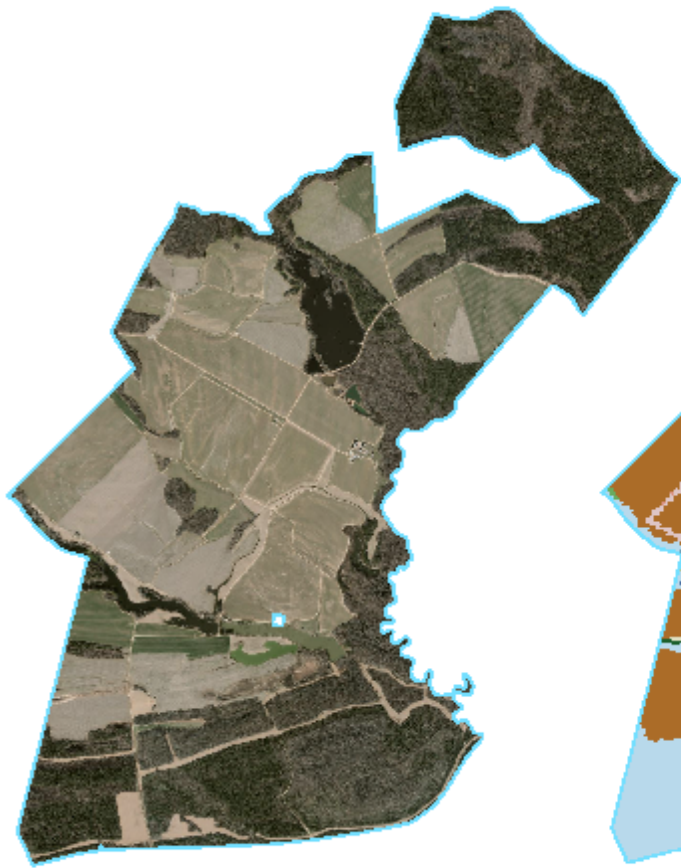
Soil Drainage Class

- Excessively Drained
- Somewhat Excessively Drained
- Well Drained
- Moderately Well Drained
- Somewhat Poorly Drained
- Poorly Drained
- Very Poorly Drained

Land Cover

- Unclassified
- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shurb/Scrub
- Herbaceous
- Hay/Pasture
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands





Imagery



Land Cover

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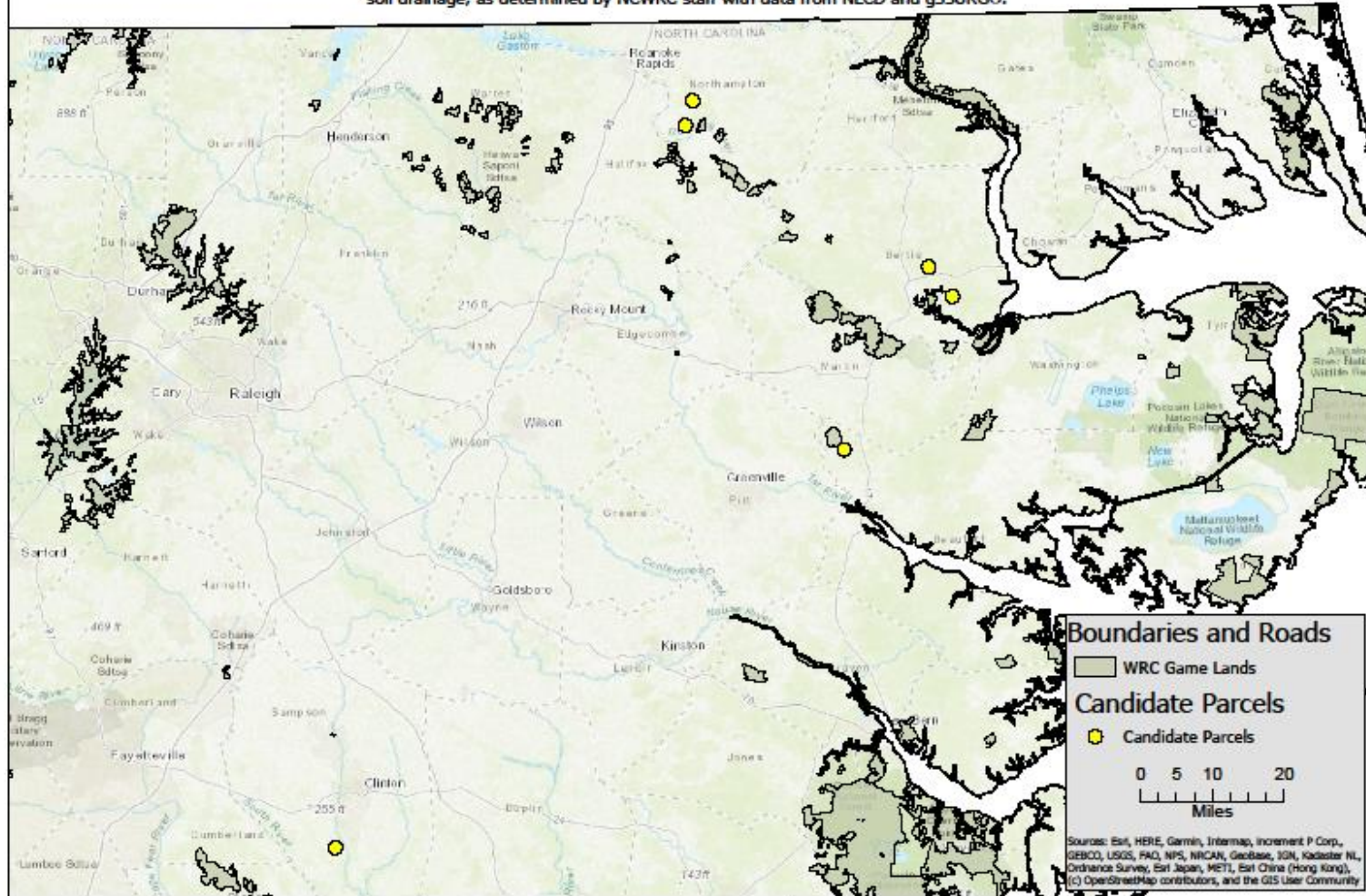
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Candidate Parcels for Quail Management

Candidate parcels were selected by analyzing ~5.5 million parcels in North Carolina for large tracts of land with a single owner. The "Suitable Acres" was calculated to represent the area of the parcel that has manageable land cover and soil drainage, as determined by NCWRC staff with data from NLCD and gSURGO.



Boundaries and Roads

WRC Game Lands

Candidate Parcels

Candidate Parcels



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, and the GIS User Community

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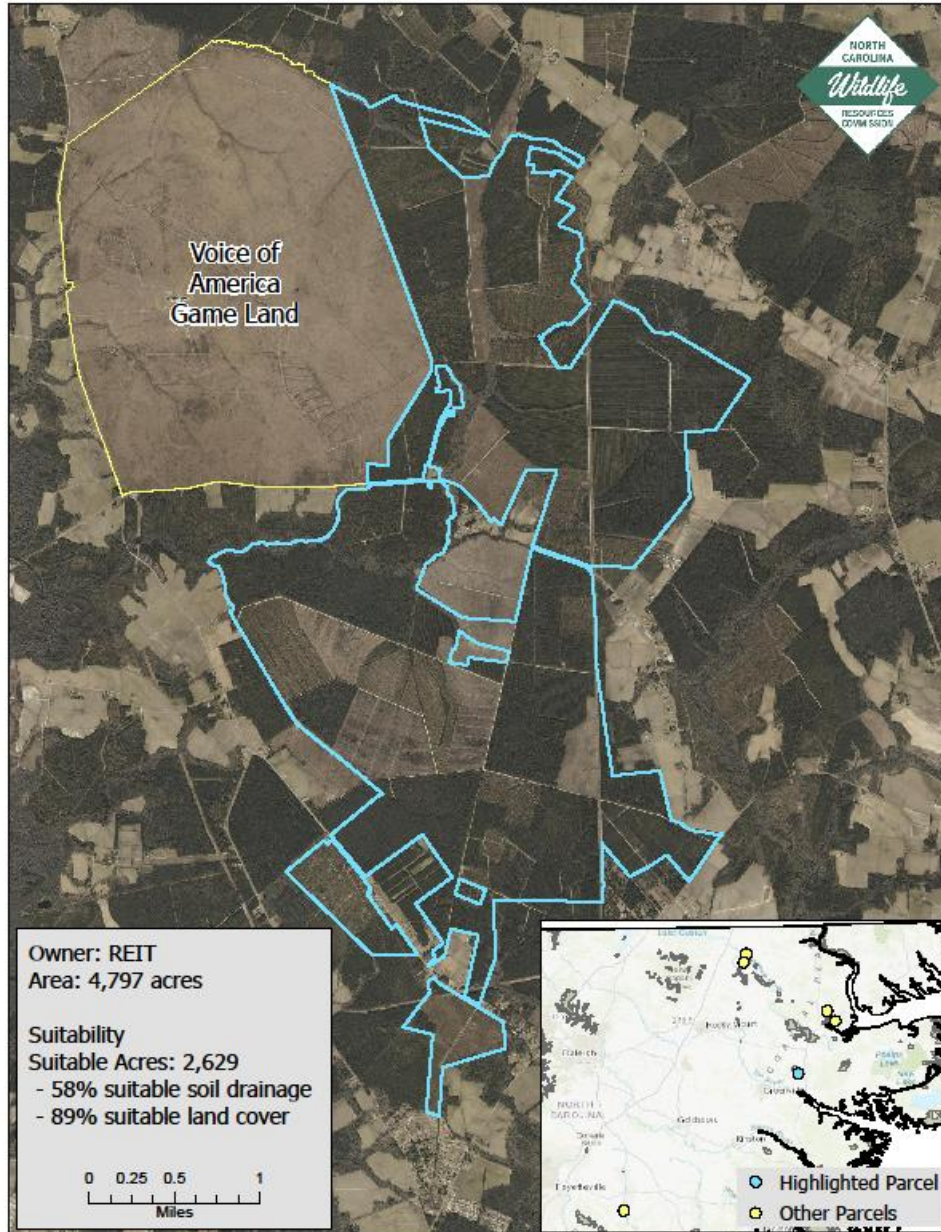
RESOURCES COMMISSION

Acquisition Candidates

Candidate	ACRES	% Suitable Landcover	% Suitable Soils	Suitable Acres	County	adj_GL	% forested	% open	Owner Type
6	4537	57	69	2291	Northampton	No	30	70	PI
5	5999	83	64	3555	Sampson	No	50	50	PI
4	3844	88	81	2917	Northampton	No	70	30	PI
3	6000	86	42	2305	Bertie	No	100	0	REIT
2	5268	82	56	2581	Bertie	Yes	100	0	REIT
1	4797	90	58	2629	Beaufort	Yes	100	0	REIT



VOA GL and Adjacent REIT Land



Proposed VOA Quail Mgmt Area

- Existing VOA is 2,818 acres, proposed acquisition is 4,797 acres for a total of 7,615 acres
- % Suitable Landcover is 90
- % Suitable Soils is 58
 - Existence of a functional drainage system
- Adjacent to VOA
- Management for Henslow's Sparrow
- Quail are present on the existing VOA
- 5,000 acres of quality quail habitat could be achieved



Acquisition Considerations and Costs

- Possible acquisition costs: \$1,500/acre(bare land)
 - Merchantable timber is often retained by owner (REIT) and harvested over a set term (5-8 yrs), governed by a timber deed
 - ~ \$7.2 Million??
- Quail Management Team
 - \$500,000 in equipment
 - \$170,000 yearly in personnel
- Short-term management: Years 1-8: \$570,000 annually
- Long-term management: Year 8+: \$295,000 annually



Acquisition Considerations and Costs

- Quality Habitat –
Approximately Year 8
- Hunting Opportunities
 - 120 “hunters” in Year 8
 - 240 “hunters” Year 10+
- Cost to Year 8
 - \$11.8 Million
 - \$7.2 Million? –
Acquisition
 - \$4.6 Million –
Management



Overall Benefits

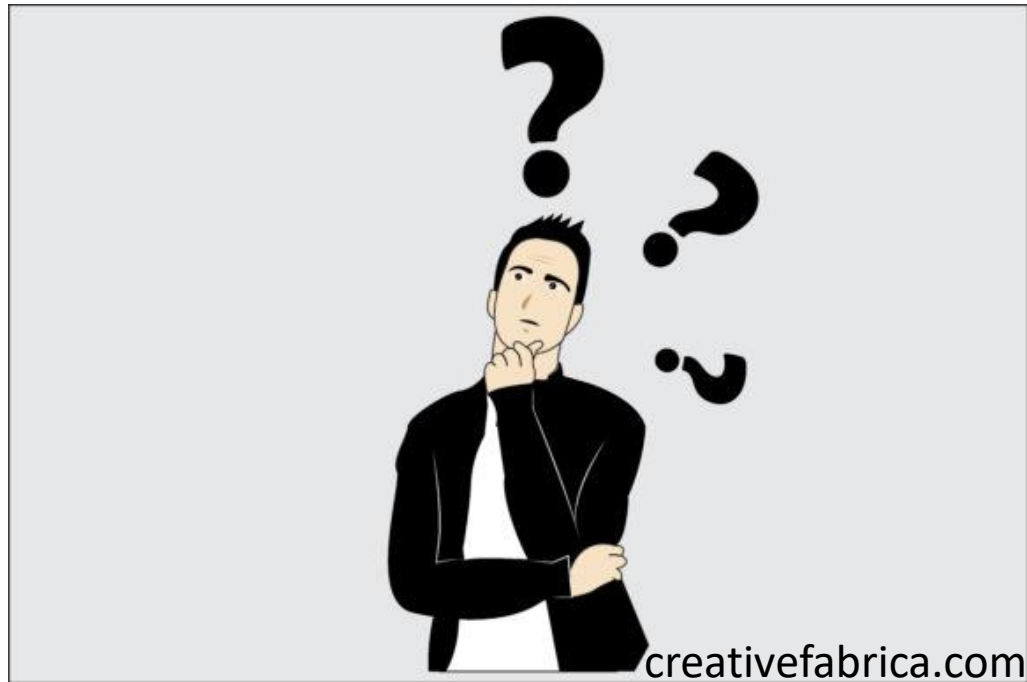


Melissa McGaw

- Wild Quail Hunting
 - Public Opportunity for high-quality wild quail hunt
- Unique Game Land
- Secondary Benefits
 - Deer Hunting
 - Turkey Hunting
 - Non-game, Henslow's Sparrow

Next Steps

- Pursue Property?
- Commit to project and long-term costs?



Questions



1 **15A NCAC 10B .0226. WILD QUAIL MANGEMENT AREAS**

2
3 (a) A Wild Quail Management Area shall be land maintained to enhance enjoyment of sportsmen and support wild
4 bobwhite quail conservation under signed agreement between the landowner(s) and the Wildlife Resources
5 Commission.

6 (b) The following minimum qualifications shall apply to all Wild Quail Management Areas:

7 (1) At least 1,500 acres of contiguous land; and

8 (2) A minimum of 15% of the land shall be maintained in year-round bobwhite quail habitat.

9 (c) Wild bobwhite quail habitat shall be any habitat described as early successional habitat within the North Carolina
10 Wildlife Action Plan, available online, free of charge, at www.ncwildlife.org.

11 (d) Landowners interested in establishing a Wild Quail Management Area shall contact the Commission as described
12 on the Commission's website at www.ncwildlife.org.

13 (e) The signed agreement between the landowner(s) and the Commission shall include at a minimum:

14 (1) A list of all owners of land included in the Wild Quail Management Area;

15 (2) County parcel identification information for each parcel to be included in the Wild Quail
16 Management Area;

17 (3) A scaled map of the Wild Quail Management Area with the areas to be maintained in year-round
18 bobwhite quail habitat clearly identified;

19 (4) Management practices to be used to maintain bobwhite quail habitat and populations; and

20 (5) Any reporting requirements in addition to the minimum requirements in (g)(6) that are specific to
21 the individual Wild Quail Management Area.

22 (f) Property inspection:

23 (1) All potential properties shall be inspected by a representative of the Commission prior to acceptance
24 into the program; and

25 (2) Wild Quail Management Areas shall be inspected by a representative of the Commission at least
26 once every five years.

27 (g) The following shall apply to all Wild Quail Management Areas:

28 (1) No domestically raised upland game birds shall be released on Wild Quail Management Areas;

29 (2) The hunting of wild bobwhite quail shall only be permitted during the established seasons in 15A
30 NCAC 10B .0208.

31 (3) Supplemental feeding, if conducted, shall be for the primary purpose of ensuring that wild bobwhite
32 quail populations remain stable during droughts or other periods of stressful environmental
33 conditions. Supplemental feed shall:

34 (A) be broadcast into quail habitat along a minimum linear distance of at least one mile per 100
35 acres of habitat at a rate of three bushels per mile;

36 (B) be broadcast on a bi-weekly schedule during at least five months each year

37 (C) be broadcast using a non-stationary spreader;

- 1 (D) be only natural grains or seed; and
- 2 (E) not be placed to attract birds for the purpose of hunting.
- 3 (4) Except for wild bobwhite quail on Wild Quail Management Areas, no wild birds may be taken near
4 or with the aid of supplemental feed.
- 5 (5) Trapping for raccoon, striped skunk, and opossum on Wild Quail Management Areas for the purpose
6 of nest predator control shall be allowed from the end of the established trapping season in 15A
7 NCAC 10B .0303 through May 31. Enclosed foot-hold traps with a one-way trigger or cage traps
8 may be used, and trapped raccoons, striped skunks, and opossums may be euthanized or released at
9 the trap site.
- 10 (6) An annual report for the period of June 1 through May 31 shall be submitted to the Commission
11 within 30 days of the end of the reporting period, and shall include at least the following:
- 12 (A) number of days and hours wild bobwhite quail were hunted;
- 13 (B) total annual harvest of wild bobwhite quail;
- 14 (C) total number of coveys flushed;
- 15 (D) supplemental feeding activities;
- 16 (E) number of trap nights, number of animals trapped and their disposition or release, by
17 species, for trapping activity conducted during trapping seasons established by 15A NCAC
18 10B .0303; and
- 19 (F) number of trap nights, number of animals trapped and their disposition or release, by
20 species, for trapping activity conducted outside of trapping seasons established by 15A
21 NCAC 10B .0303.
- 22

1. **Ruffed Grouse Management and Research**
 2. **Turkey Ecology Project**
 3. **Gobbling Chronology Project**
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Chris Kreh

Upland Game Bird Biologist



Walking and Driving Grouse Survey Routes

 NCWRC - State Owned Game Lands

 Pond Mountain Walking Grouse Survey Route

National Forest Forest Game Lands

Driving Grouse Survey Route Starting Points

Ranger Districts


Land Ownership


 Appalachian Ranger District

 NCWRC Lands

 Cheoah Ranger District

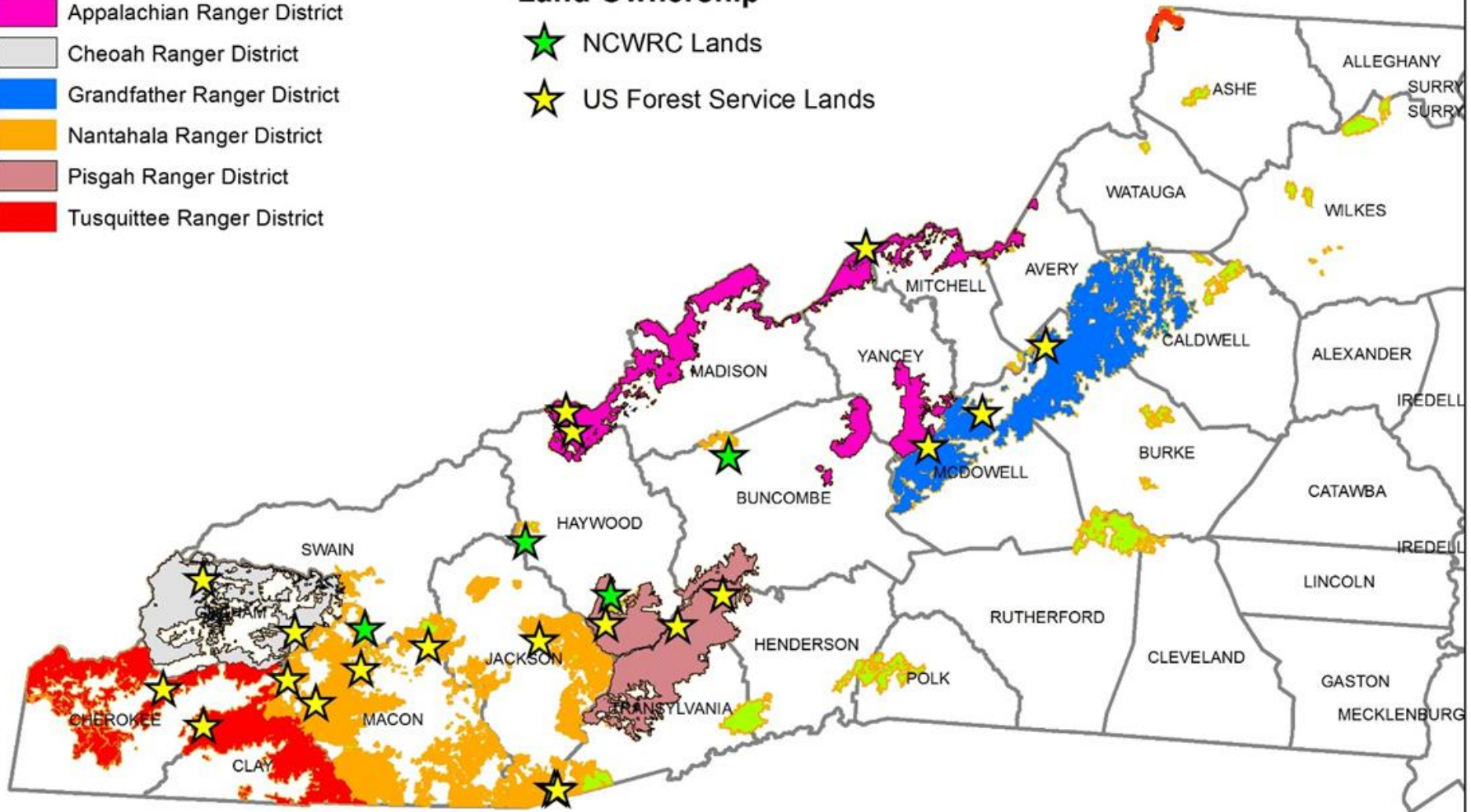
 US Forest Service Lands

 Grandfather Ranger District

 Nantahala Ranger District

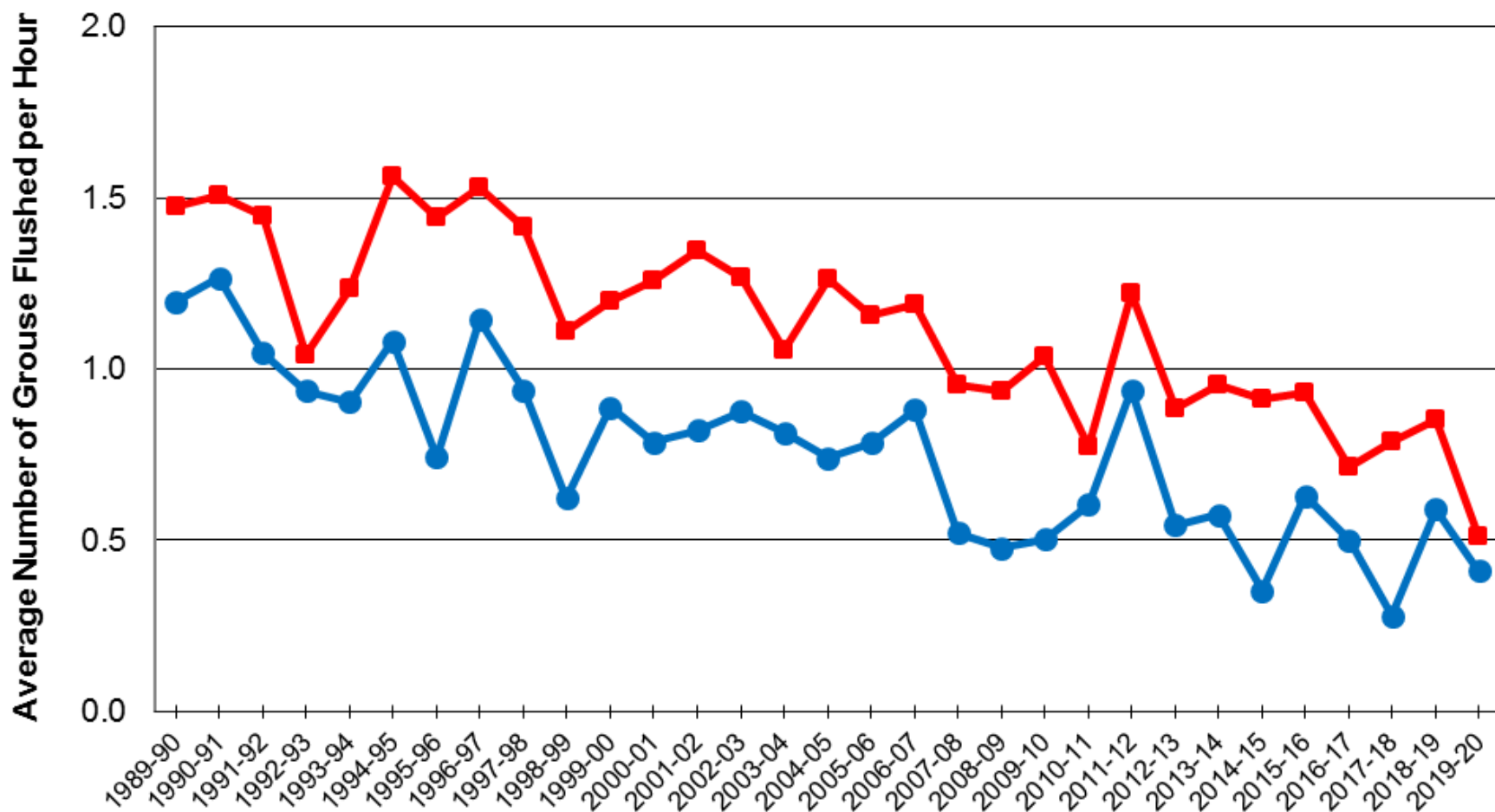
 Pisgah Ranger District

 Tusquitee Ranger District



Average Grouse Flush Rate by Land Type

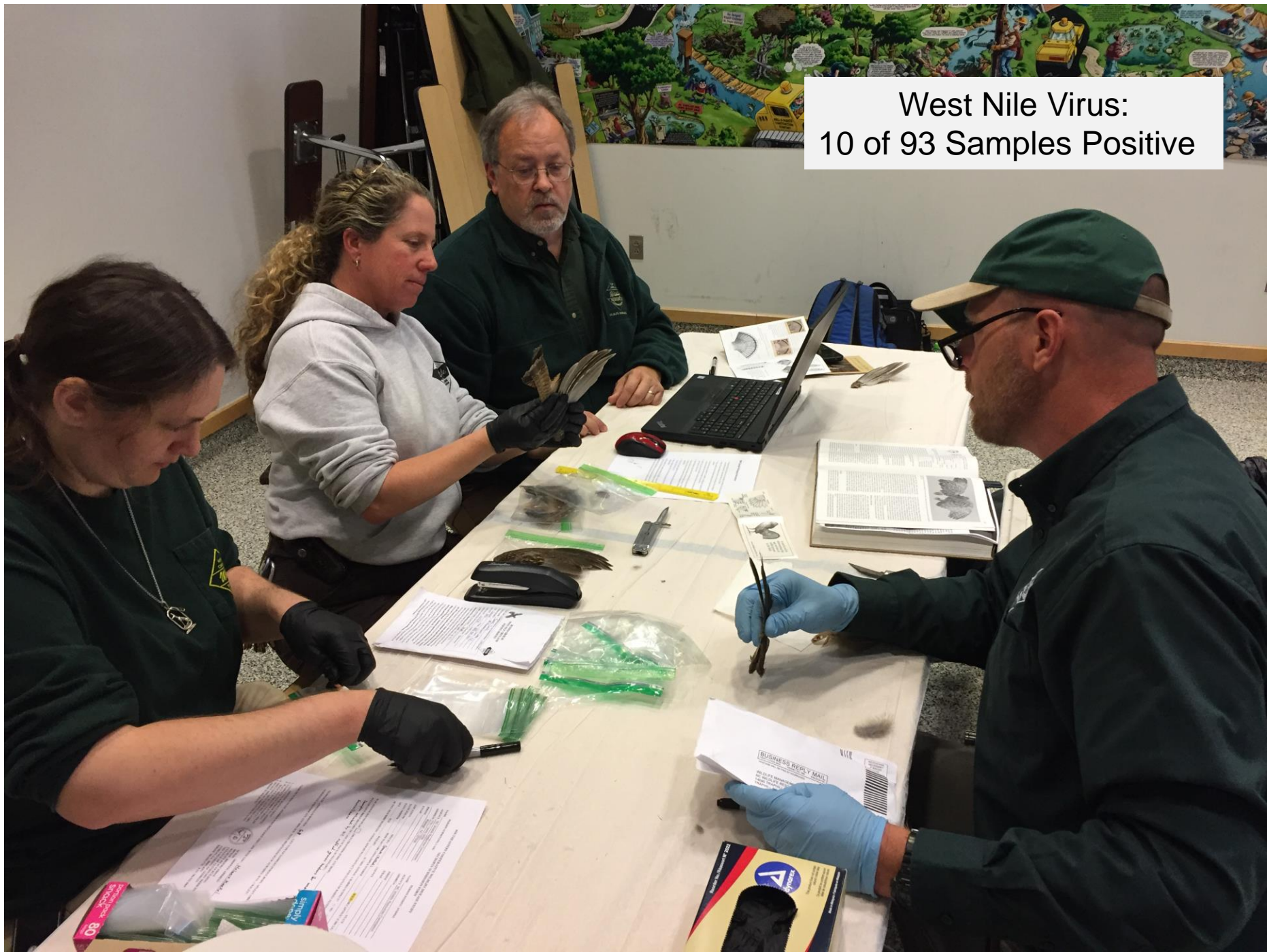
North Carolina Avid Grouse Hunter Survey, 1989-90 through 2019-20



Hunting Season

- Game Lands
- Private Lands

West Nile Virus:
10 of 93 Samples Positive





United States
Department of
Agriculture

Nantahala and Pisgah National Forests



Proposed Land Management Plan



Forest
Service

Southern
Region

National Forests
in North Carolina

R8 MB-154 LMP

January
2020

- NCWRC's comments on the Nantahala – Pisgah Proposed Land Management Plan included:
 - *“The previous planning period has clearly demonstrated that sustained timber harvest levels around 800 acres annually are inadequate to address the diminishing habitat needs of young forest and early-seral wildlife species across the Forest.”*
 - *“Specifically, NCWRC recommends the implementation of regeneration harvests of at least 2,000 acres annually, but we prefer that the upper end of the Tier 2 objective range of 3,200 acres/year be achieved.”*



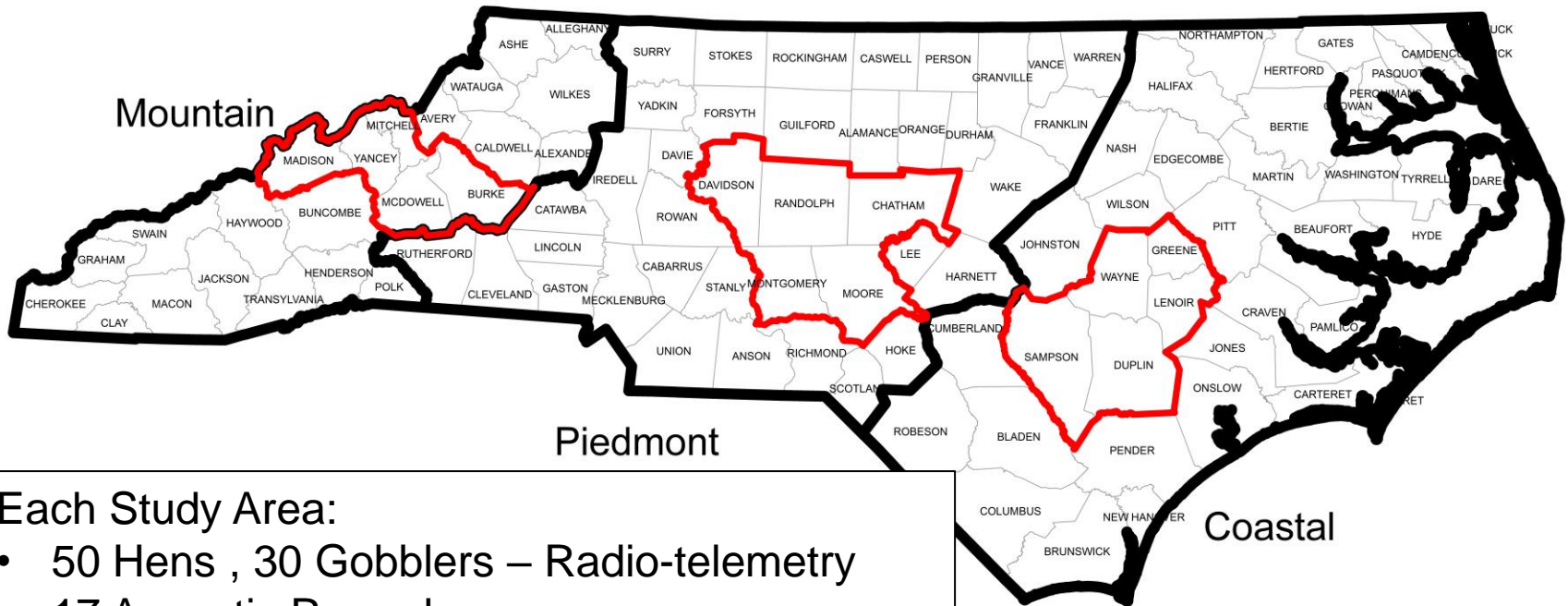
Turkey Ecology Project 2020 - 2023



Chris Kreh

Upland Game Bird Biologist

Turkey Management Regions and General Locations of Turkey Study Areas



Each Study Area:

- 50 Hens , 30 Gobblers – Radio-telemetry
- 17 Acoustic Recorders
- NCSU – 2 Technicians Full-Time
- NCWRC Assistance
- NWTf Assistance

Captured 280 Turkeys for
Radio-transmitters and
Disease Samples





12 of 84 (14%) of Male Turkeys
Were Taken by Hunters

103 Nests

Average Dates When Incubation Began:

- Mountains – April 23rd
- Piedmont – April 25th
- Coast – April 26th



Gobbling Chronology Project 2016 - 2019

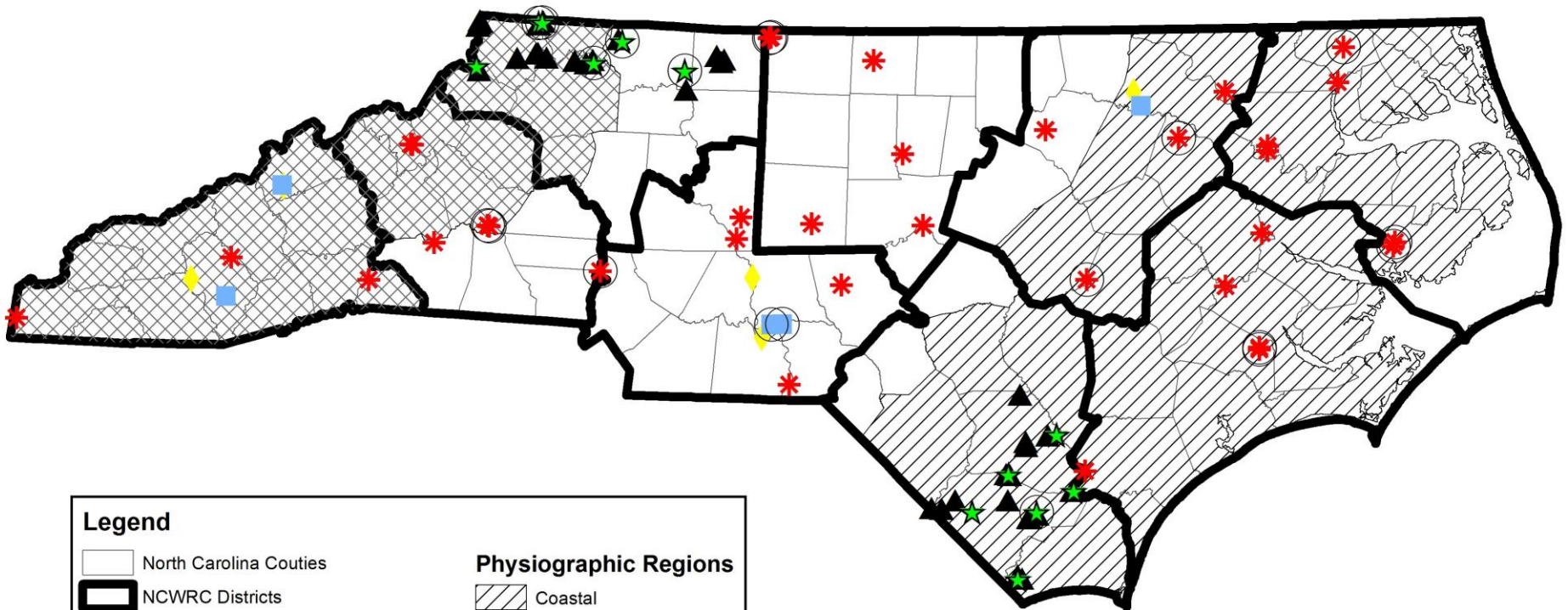


Chris Kreh

Upland Game Bird Biologist



Acoustic Recorder Locations 2016 - 2019



Legend

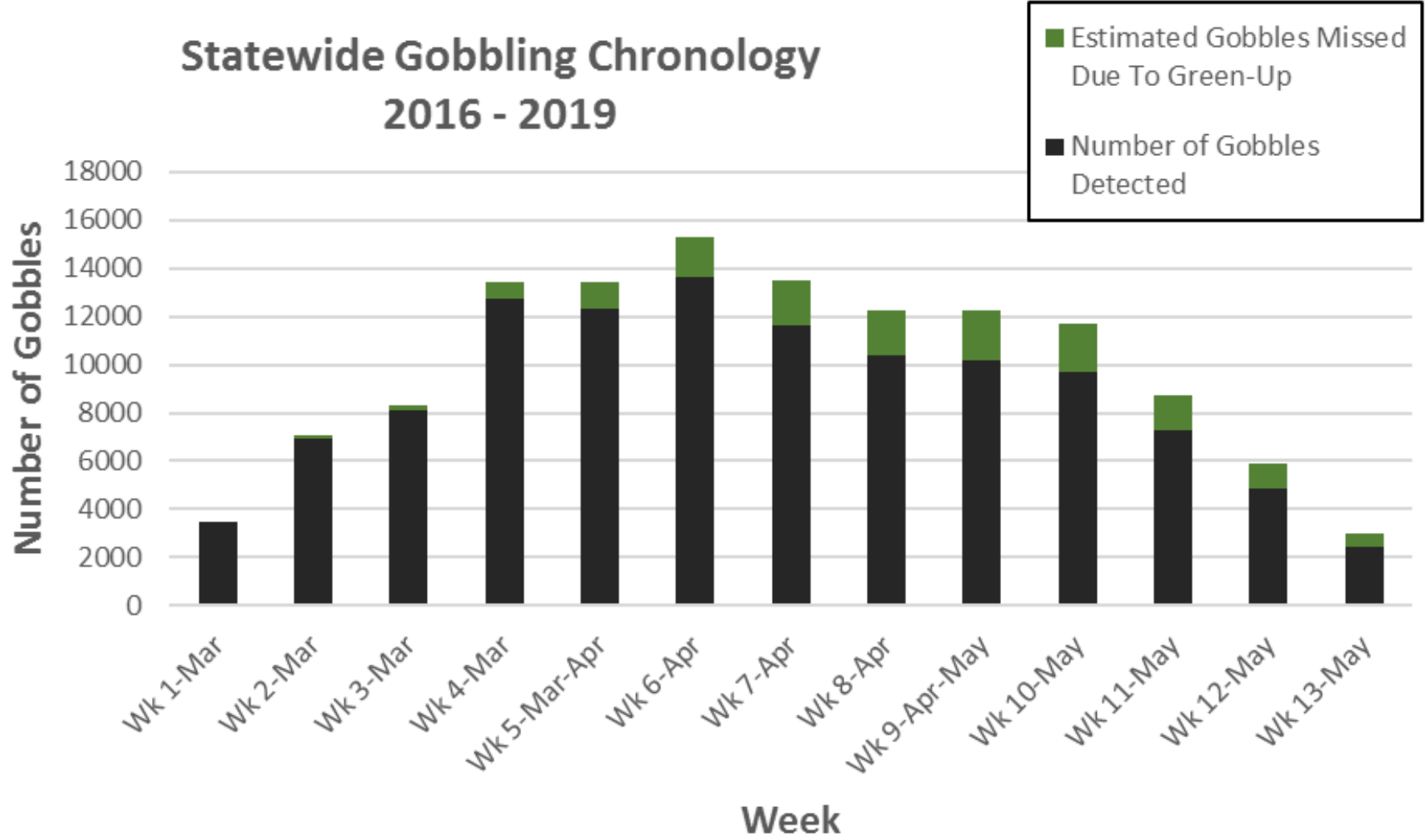
North Carolina Counties	Physiographic Regions
NCWRC Districts	Coastal
Acoustic Recorders Locations	Mountain
2016	Piedmont
2017	
2018, 2019	
2017, 2018, 2019	
2016, 2017, 2018, 2019	
Locations Where ARUs Were Evaluated	

Gobbling Chronology Project 2016 - 2019



- 51 recorders each year
- 53,000+ hours of audio files
- 113,000+ gobbles
- Final report available soon

Statewide Gobbling Chronology 2016 - 2019



Gobbling Chronology Project 2016 - 2019



1. **Very little regional variation in gobbling activity:**
 - *Maintain uniform hunting seasons across the state*

Gobbling Chronology Project 2016 - 2019



- 1. Very little regional variation in gobbling activity:**
 - *Maintain uniform hunting seasons across the state*
- 2. Majority of gobbling activity (60%) occurred when hunting season is open:**
 - *Hunted areas will differ substantially. Educate hunters!*

Gobbling Chronology Project 2016 - 2019



- 1. Very little regional variation in gobbling activity:**
 - *Maintain uniform hunting seasons across the state*
- 2. Majority of gobbling activity (60%) occurred when hunting season is open:**
 - *Hunted areas will differ substantially. Educate hunters!*
- 3. Only 25% of gobbling occurred prior to hunting season**
 - *Do not open season earlier. Use nesting and gobbling information to determine ideal date for opening hunting season.*

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