



Deer Natural History and NC Wildlife Resource Commission Programs

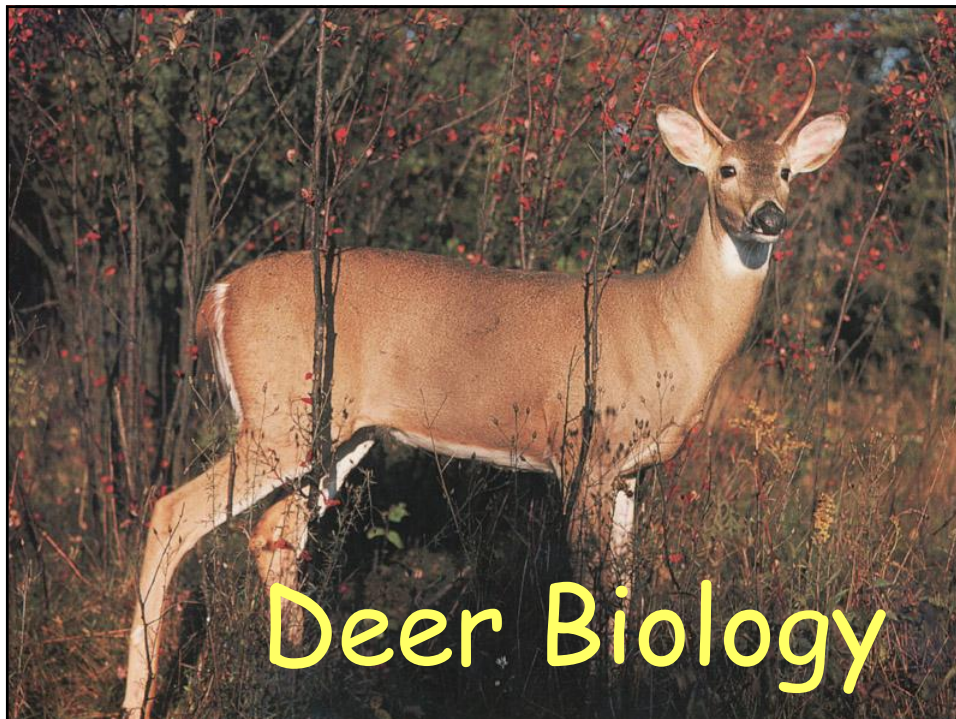
Brad Howard
Division of Wildlife Management

North Carolina's most popular wildlife species & #1 game animal

- > 250,000 hunters in North Carolina
- contribute > \$1 Billion per year to NC's Economy
- Annual estimated harvest of >250,000 in 2007



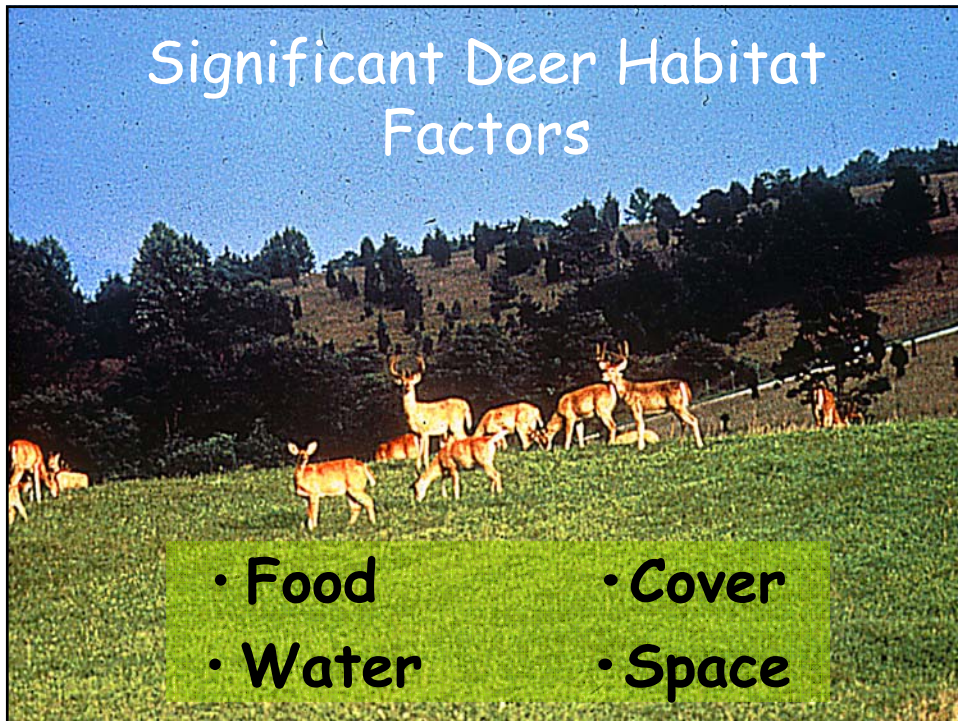
Total Estimated Deer Harvest



Key Points to Remember

- White-tailed Deer are a prey species
- Natural Predators no longer exist
- Deer live to do 2 things
 - Eat
 - Reproduce
- In the absence of predation deer population will not regulate themselves
- The habitat will regulate deer density and condition.
- Deer can have a significant detrimental effect to the landscape if not managed

Significant Deer Habitat Factors



- On average an adult white-tailed deer requires 3-5% of its body weight in forage daily.

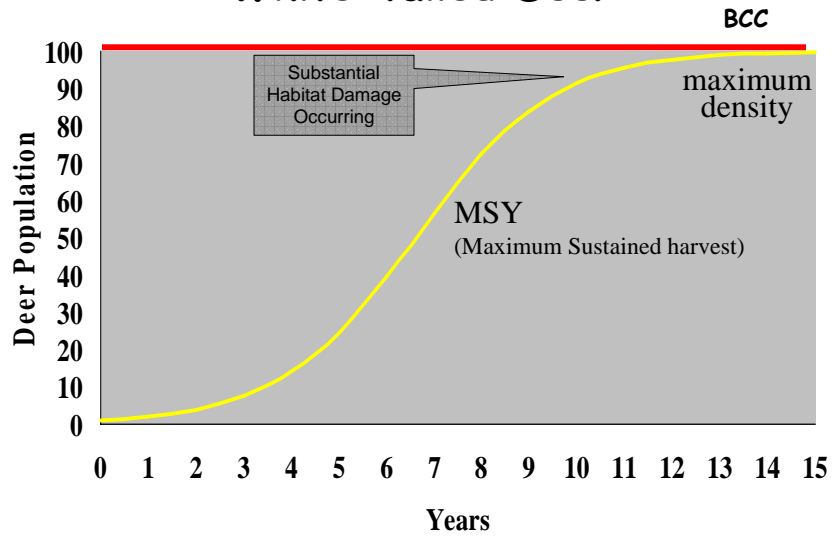


White-tailed Deer Food Requirements

Biological Carrying Capacity (K or BCC)

A term used to describe the maximum number of deer a habitat can support on a sustained basis without causing damage to the vegetation (i.e., the habitat). It is not a function of the deer herd. It is a function of the quantity and quality of the habitat.

Logistic Population Growth Curve for White-tailed Deer





Two Primary Components of Deer Management

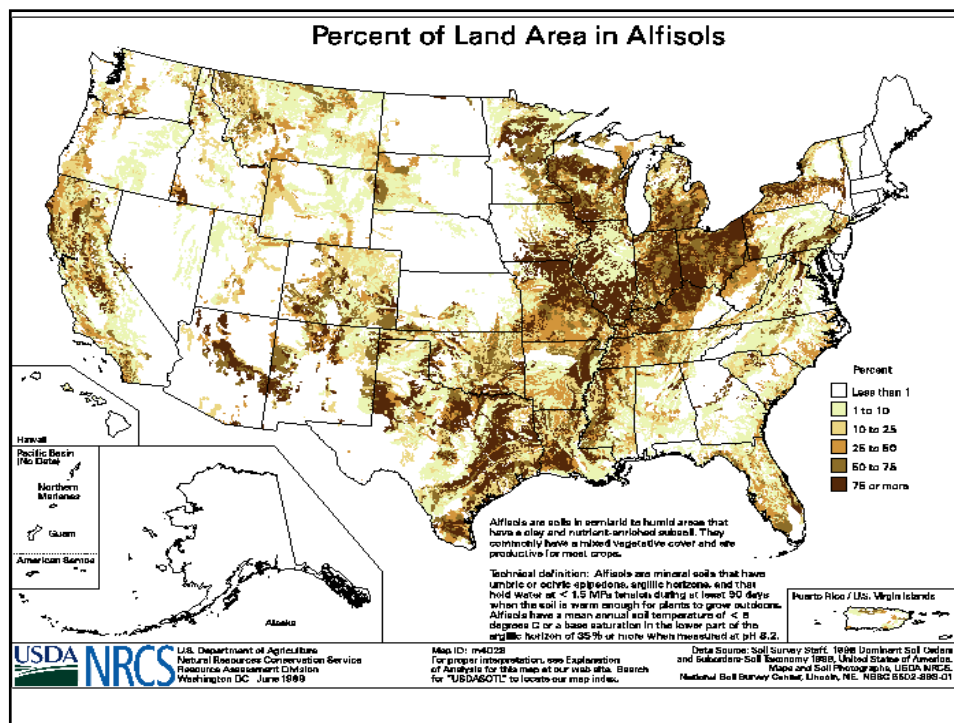
- Habitat Management
- Population Management

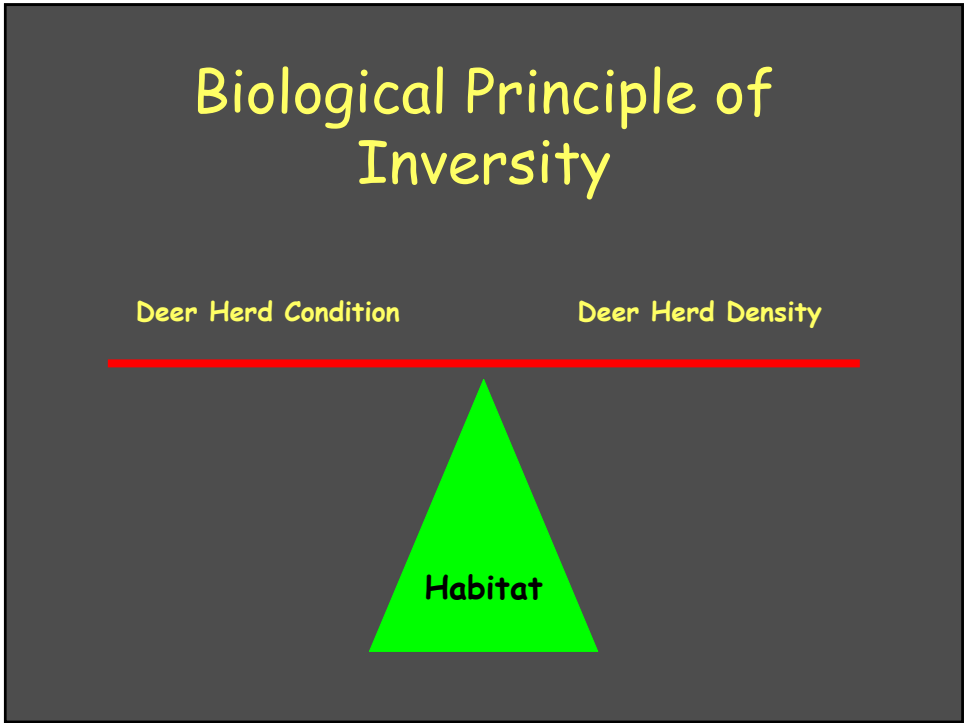
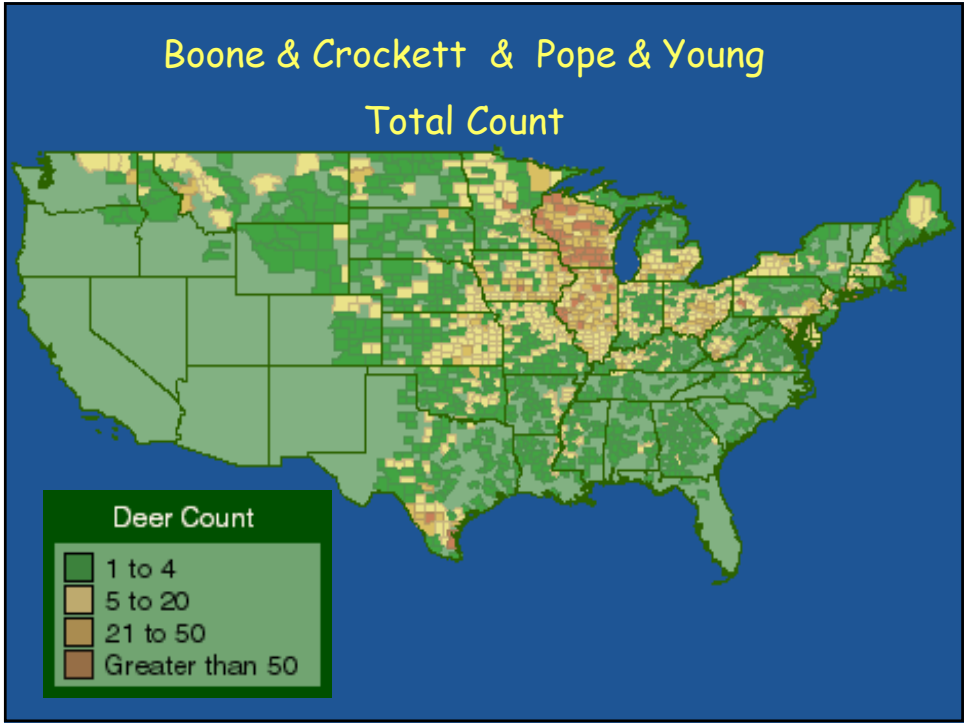
Habitat Management

- Timber Harvest AND Timber Mgmt.
- Food Plots
 - Annual vs. Perennial
 - Warm Season vs. Cool Season
- Native Vegetation Management
 - Burning
 - Disking

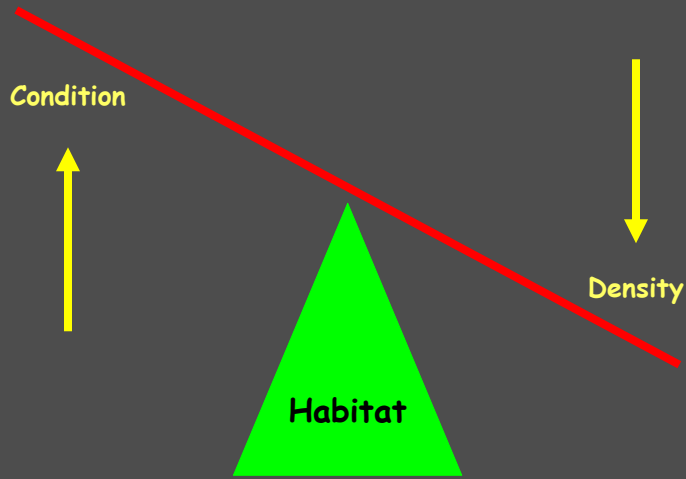
SOILS

- The productivity of your deer herd is directly tied to the soil.
- The biological potential of the bucks on your property is limited by the soil.
- Western NC is not blessed with good deer soils. They get better through the Piedmont and fall off once again on the Coast.
- While agriculture can certainly change the potential of an area as far as bucks are concerned, we are limited in NC to the fundamental soils we have.

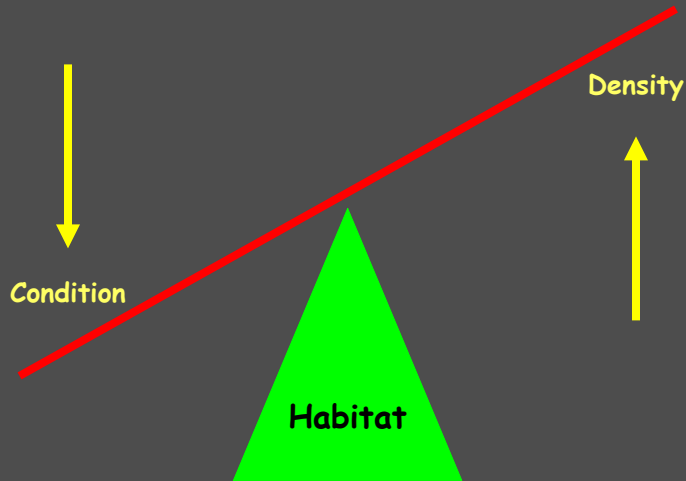




Biological Principle of Inversivity



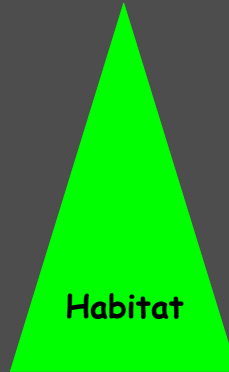
Biological Principle of Inversivity



Biological Principle of Inversivity

Deer Herd Condition

Deer Herd Density



Biological Principle of Inversivity

Deer Herd Condition

Deer Herd Density

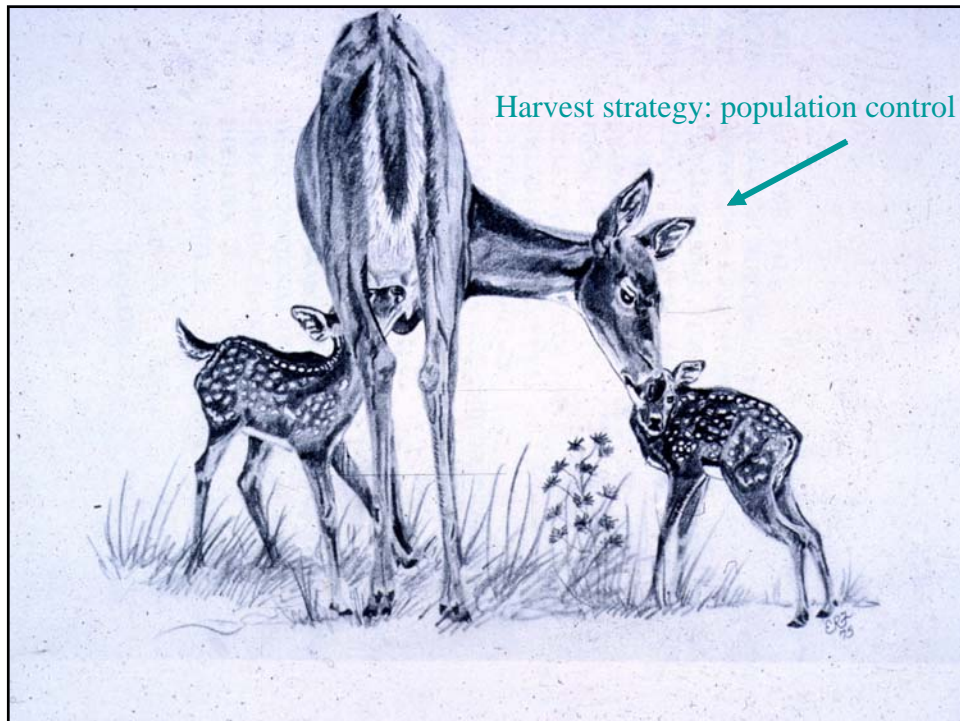
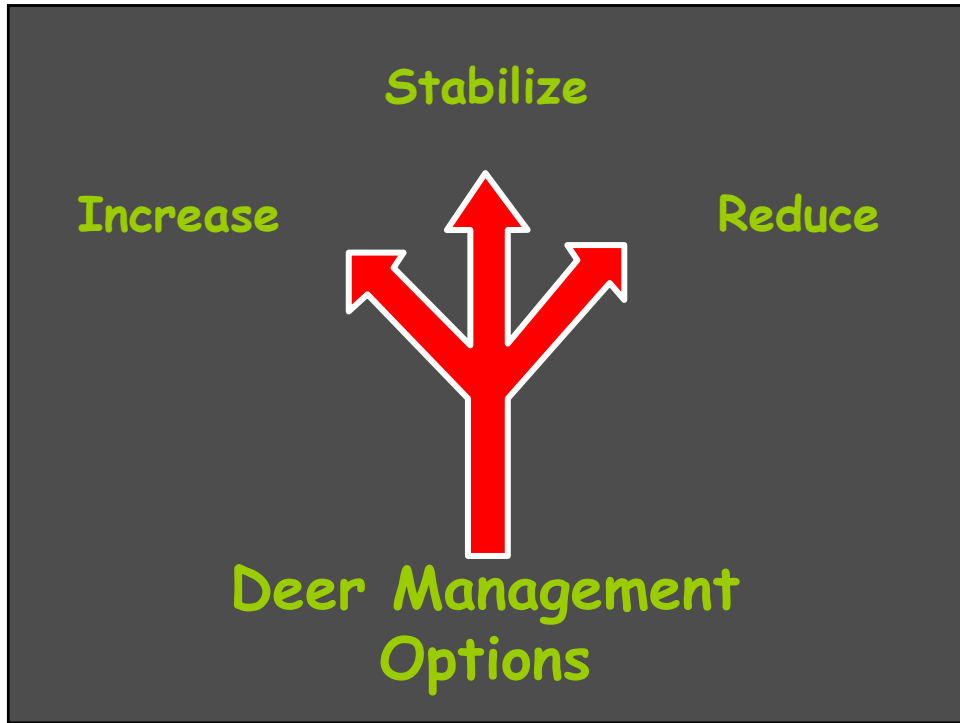


Population Management

- Correct Harvest Levels
- Correct Age Structures

Harvest Management





BUCKS



Year 1



Year 2



Year 3



Year 4



Year 5



DOES



Year 1



Year 2



Year 3



Year 4



Year 5



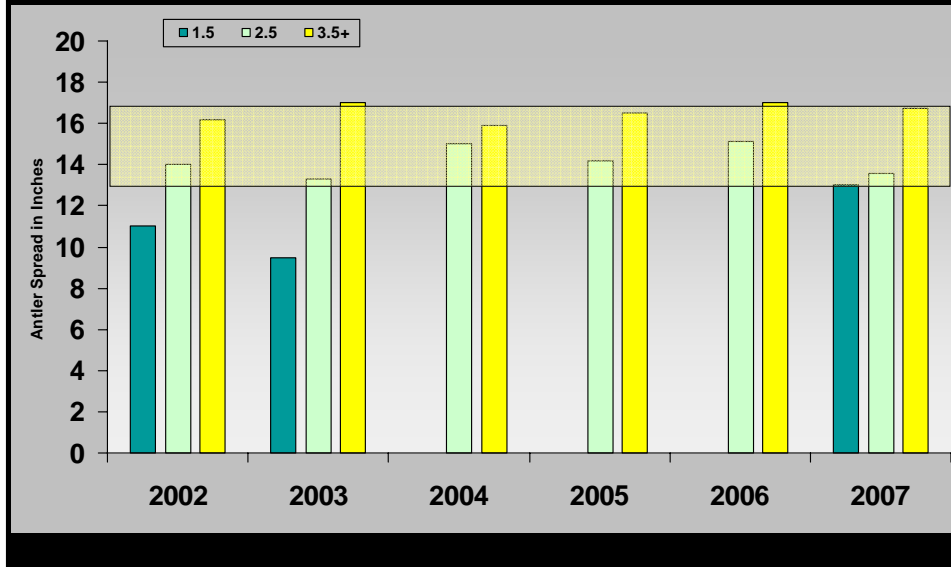
Doe Harvest Management

- How many?
 - You need to keep records and work with your local biologist to determine this number.
- Which ones?
 - Try to shoot the bigger deer but don't get too concerned, let the age structure of your harvest tell you if you are shooting the correct amount.
- When during the season?
 - This depends somewhat on personal choice but I would avoid a lot of doe shooting during the peak of the rut.

Buck Harvest Management

- Which Bucks?
 - Depends on your objectives
 - Focus on 2.5 year and older bucks at first
 - If you are hunting small properties, you should probably always focus on 2.5 year old bucks being your "primary" target buck.
- How many?
 - If you are controlling the age of the "shooter" buck then over here at least the answer is no more than 2 per person.
- Do we need to protect button bucks?
 - Don't worry about protecting button bucks, it almost always leads to passing up does that should have been shot and there is a lot of research that says, unless you own a Texas ranch, the button bucks are likely not going to be on your property next year anyway.

Antler Spread by Age Class Iredell County DMAP Example



So How does the WRC “Manage Deer”?

- Understand that regulatory management has to occur at a scale that it can actually be enforced and provide relevant data/information.
- Regulatory management is most successful with full hunter “buy in” and cooperation.
- Finally the management is almost exclusively total herd density management.

Population Management

- Historically management efforts have dealt with how to harvest the correct portion of does from the population.
- The doe harvest is really controlled by the number of legal days hunters can shoot does.
- Bag limits play very limited roles in this.
- Areas are generally placed into one of 5 either sex frameworks.

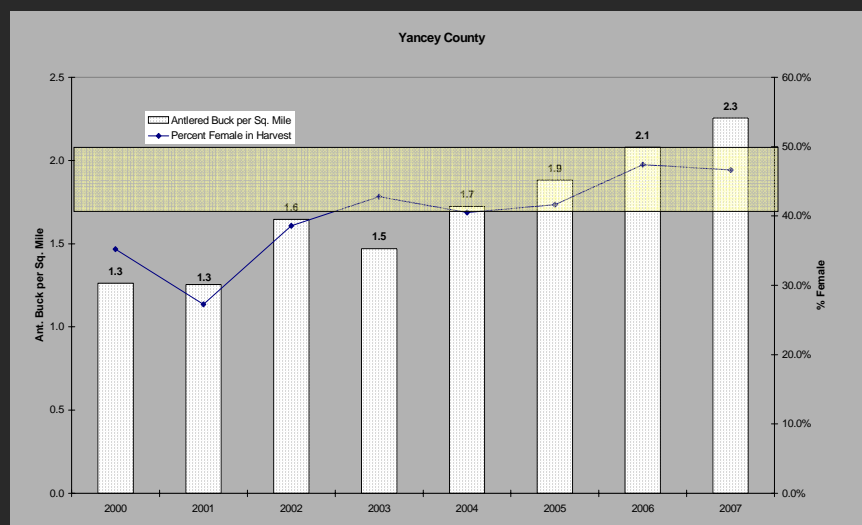
Either Sex Frameworks

- Introductory (1 day)
- Conservative (6 days)
- Moderate (12 days)
- Liberal (18 days)
- Maximum (full season)
- *Plus all of archery and either 1 day or 6 days of muzzleloading season depending on where you are.*

So what do we track & how?

- Call in System
 - Total Reported Harvest
 - % Female in the Reported Harvest
- Physical Data Collection
 - Age Structure of Harvest.
 - Population Modeling
- Hunter mail survey
 - Get an estimate of harvest
 - Allows us to calculate a reporting %
 - Allows us to generate a total estimated harvest

Yancey County Example



Some Important Regulatory Moments in NC's History

- 1927: Buck law establish, no doe hunting
- 1956: Bag limit raised from 1 to 2 in Northwestern and Western Counties
- 1961: Either-sex hunting initiated on Private Lands
- 1969: Either-sex hunting closed due to public pressure
- 1973: Antlerless deer allowed during bow season
- 1975: Muzzleloader season established
- 1976: Mandatory tagging and reporting of all deer at cooperator agents
- 1981: Muzzleloader expanded to 6 days
- 1980s: A series of bag limit increases, antlerless deer tags and other either-sex hunting opportunities

Continued

- 1992: Statewide bag limit changed to 2 daily 5 per season 1 of which must be antlerless.
- 1997: Established Current Either-sex frameworks
- 2000: 2 buck limit established in all non dog hunting areas
- 2003: Season extension in Northwest season
- 2004: Added additional Saturday in Northwest Season
- 2007: Urban Archery Season created
- 2007: Entire Central Deer Season goes to 2 buck limit

What Can WRC do for you?

- Hopefully provide healthy deer populations with ample opportunity for all.
- More specifically
 - On Site technical assistance with habitat and population management.
 - Inclusion in cooperative deer management programs such as DMAP

What is DMAP?

- DMAP is the state's Deer Management Assistance Program
- Areas with a minimum of 500 acres under direct control can apply for DMAP
- Can be multiple properties and owners but everyone must be willing to submit data from all deer harvested
- Antlerless deer tags are issued to cooperators for a specific number of deer to be harvested
- Buck management recommendations are given where requested

Available Resources

- A dedicated Private Lands Staff
- District Wildlife Biologist in every district
- We can help with the complicated overabundant information that is out there and help you learn what works and what doesn't in our neck of the woods.
- I strongly advise everyone to engage their District Biologist in your Deer Management Program.

