Kentucky’s Deer Population

- **Herd Status**
  - Statewide population model estimates a stable herd
- **Boone & Crockett**
  - Top 5 state for Trophy Bucks
- **Economically Important to KY**
  - $553.5 million annually
  - 13,322 Jobs
- **Deer are a valued public resource**
  - Renewable resource
  - Recreational opportunities
    - Consumptive and non-consumptive
  - Healthy ecosystem characteristic
Kentucky’s Deer Herd - we’ve come a long way

From this

To this
Stakeholders

- Hunters
- Landowners
  - Farmers
  - Leasing
    - Hunting
    - Farming
- Non-consumptive users
# Zones and Seasons

![Map of Kentucky with zones highlighted](image)

<table>
<thead>
<tr>
<th>DEER</th>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
<th>Zone 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Gun</td>
<td>Nov. 8-23, 2014 (either sex)</td>
<td>Nov. 8-17, 2014 (either sex)</td>
<td>Nov. 8-17, 2014 (antlered only)</td>
<td>Sept. 6, 2014 - Jan. 19, 2015 (either sex, except antlered only Oct. 18-19, Nov. 8-17 and Dec. 13-18)</td>
</tr>
<tr>
<td>Muzzleloader</td>
<td>Oct. 18-19 and Dec. 13-21, 2014 (either sex)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth-only Firearms</td>
<td></td>
<td>Oct. 11-12, 2014 (either sex)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free Youth Weekend</td>
<td></td>
<td>Dec. 27-28, 2014 (either sex)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Determining the right deer zone?

- Variety of factors go into deer zone designations
  - Harvest number
  - Age and sex of harvest
  - Deer vehicle collisions
  - Nuisance complaints
  - Habitat change
  - Hunter Input
  - KDFWR Staff Input
  - Disease Outbreaks?
Deer Zones

- Deer populations are not spread across the landscape uniformly

- Deer hunting is managed at the county level

- KDFWR sets biologically acceptable parameters for harvest, landowners can choose to be more conservative

<table>
<thead>
<tr>
<th>Deer Density Goals per Deer Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
</tr>
<tr>
<td>Deer mi²</td>
</tr>
</tbody>
</table>
Harvest by Weapon Type

Number of Deer Harvested by Weapon Type in 2014-15

<table>
<thead>
<tr>
<th>Weapon</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archery</td>
<td>11,293</td>
<td>7,076</td>
<td>18,369</td>
</tr>
<tr>
<td>Crossbow</td>
<td>1,881</td>
<td>1,081</td>
<td>2,962</td>
</tr>
<tr>
<td>Firearm</td>
<td>41,355</td>
<td>61,538</td>
<td>102,893</td>
</tr>
<tr>
<td>Muzzle-loader</td>
<td>8,992</td>
<td>5,683</td>
<td>14,675</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>63,521</strong></td>
<td><strong>75,378</strong></td>
<td><strong>138,899</strong></td>
</tr>
</tbody>
</table>

IT'S NOT ABOUT THE WEAPON

IT'S ABOUT THE HUNTER
KY hunters do an excellent job harvesting does
- Archery/crossbow hunters
Age harvest data suggest hunters are passing on male fawns
- ~6 % male fawns in harvest

Antlered Buck and Doe Harvest

- Doe Harvest
- Antlered Buck Harvest


Harvest: 40,000, 45,000, 50,000, 55,000, 60,000, 65,000, 70,000
Deer Killed Per Hunter

- Average hunter harvest 1.36 deer. This rate has remained constant over the last decade.
- Indicating more hunters in the woods, not the same number of hunters killing more deer!

<table>
<thead>
<tr>
<th>Successful hunters</th>
<th># deer killed</th>
<th>% of successful hunters</th>
</tr>
</thead>
<tbody>
<tr>
<td>76,994</td>
<td>1</td>
<td>78%</td>
</tr>
<tr>
<td>18,570</td>
<td>2</td>
<td>19%</td>
</tr>
<tr>
<td>4,269</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>2,486</td>
<td>4+</td>
<td>3%</td>
</tr>
<tr>
<td>Total successful hunters</td>
<td>102,319</td>
<td></td>
</tr>
<tr>
<td>Average Hunter Harvests:</td>
<td>1.36</td>
<td></td>
</tr>
</tbody>
</table>
Number of deer tags sold are slightly increasing
- Which is good however...

Seeing a increase in number of senior licenses sold
- Indicating an older generation of hunters
Population Estimate

- Factors that go into model
  - County Harvest
  - Subsample of age and sex information
  - Non-compliance
  - Reproductive rate of females

Example County
Nelson County Deer Harvest

Zone reduced in 2010 and increased in 2015
Nelson Co Antlered and Antlerless Deer Harvest

Antlered Harvest

Antlerless Harvest

Years: 1995 to 2014

Numbers: 0 to 2500
Has the harvest proportion changed?

- **Statewide**
  - **2009**
    - Female harvest
      - 88% Resident
      - 12 % NR
    - Male harvest
      - 88% Resident
      - 12 % NR

- **Nelson Co**
  - **2009**
    - Female harvest
      - 90% Resident
      - 10 % NR
    - Male harvest
      - 90% Resident
      - 10 % NR
Resident vs Non-Resident Harvest

• Statewide Harvest
  • 2014
    • Female harvest
      • 88% Resident
      • 11 % NR
    • Male harvest
      • 87% Resident
      • 13 % NR

• Nelson Co
  • 2014
    • Female harvest
      • 90% Resident
      • 10 % NR
    • Male harvest
      • 89% Resident
      • 11 % NR
Population estimates had been high in 2000’s

Significant EHD/BTV outbreaks in 2007 and 2010

Reduced from a zone 1 to a zone 2 in 2010
  - Reduction due to EHD outbreak and population decline

Harvest has rebounded and has exceeded mid 2000’s levels

County population estimate has rebounded to mid 2000’s levels
Deer-vehicle collision numbers have been steadily increasing since the zone reduction in 2010.

Reports from staff indicating hunters are seeing plenty of deer.

Damage Complaints
How does a change become implemented?

- Deer program reviews data after hunting season
- Deer program conducts regional meetings with Wildlife and LE staff to get input
- Summarize any and all public input
- Deer advisory counsel reviews all potential deer changes
- Counsel creates an approved list of changes submitted to the Wildlife Director
- Wildlife Director meetings with KDFWR executive staff to present changes
- Approved changes are submitted to the KDFWR Commission in November to the wildlife committee
  - Wildlife committee passes or tables items to the full commission meeting
- Full Commission in meeting in December discusses all items for final passage
  - Vote for approval
- Passed items are submitted for regulation incorporation and a final comment period
Aldo Leopold

- Father of wildlife management
- “The real problem is not how we shall handle the deer. The real problem is one of human management. Wildlife management is comparatively easy; human management is difficult.” March 1943
Questions?

Gabe Jenkins
800-858-1549
Gabriel.Jenkins@ky.gov