Surgical Sterilization of White-tailed Deer

Dr. Anthony J. DeNicola
President, White Buffalo, Inc.
Reproductive Control Approaches

- **Immunocontraceptives**
  - GnRH
  - PZP/SpayVac®

- **Surgical Sterilization**
  - Tubal ligation
  - Ovariectomy
Contraception/Sterilization

**PROS**
- Perceived humane, non-lethal
- Often less legal restrictions
- Strong public acceptance

**CONS**
- State agency resistance
- No immediate reduction
- High cost
Village of Cayuga Heights

- 1.8 mile$^2$
- Population ~3,600
- 850 properties
City of Fairfax

- 6.3 mile²
- Pop. ~22,500
- 8350 prop.
Mount Lebanon

- ~6 mile\(^2\)
- Pop. ~33,000
- 13,500 prop.
Capture Methods – Remote Immobilization
Darted Deer Recovery
Deer Retrieval
Surgical Preparation
Shaved and Scrubbed
Surgical Sterilization – Local site adaptation
Incision site
Immobilization Drug Reversal
Post-release
Capture Summary – Cayuga Heights

- 12/1/2012 – 12/15/2012
- 172 deer captured – 137 does sterilized (98%)
- ~650 person-hours capture (3.4 hours/deer)
- ~185 person-hours surgery (1.4 hours/deer)
- 2 Mortalities and 2 were euthanized
Pursuit Effort Relative to Deer Density

Person-hours vs. Deer per mile$^2$
Sterilization Research

- Town and Country, MO (2009-10) – 130 females in 10 miles$^2$; combined with sharpshooting after first year. With culling ~60% reduction

- Phoenix, MD (2011-15) – 80 females on 14 acres (Stable)

- Cayuga Heights, NY (2013) – 149 females in ~2 miles$^2$; 40% reduction after 2 years; combined with archery culling after second year resulted in additional 15% reduction.

- San Jose, CA (2013) – 115 females in 700 acres partially enclosed (40% reduction in 2 years)
Pursuit Effort Relative to Deer Density

Person-hours vs. Deer per mile$^2$
• City of Fairfax, VA (2014-15) – 36 females in 5 miles$^2$; 85% of the females

• NIH, Bethesda, MD (2014) – 27 females (94%) in a 322 acre fenced urban campus over 2 days

• East Hampton, NY (2015) – 114 females (~70%) in 5 miles$^2$ over 12 days
Cost

- ~$1,000/female with all professional labor
- ~$500/female with volunteer veterinarians and handling personnel
Questions?