

Virginia Bowhunters Association

Matt Knox

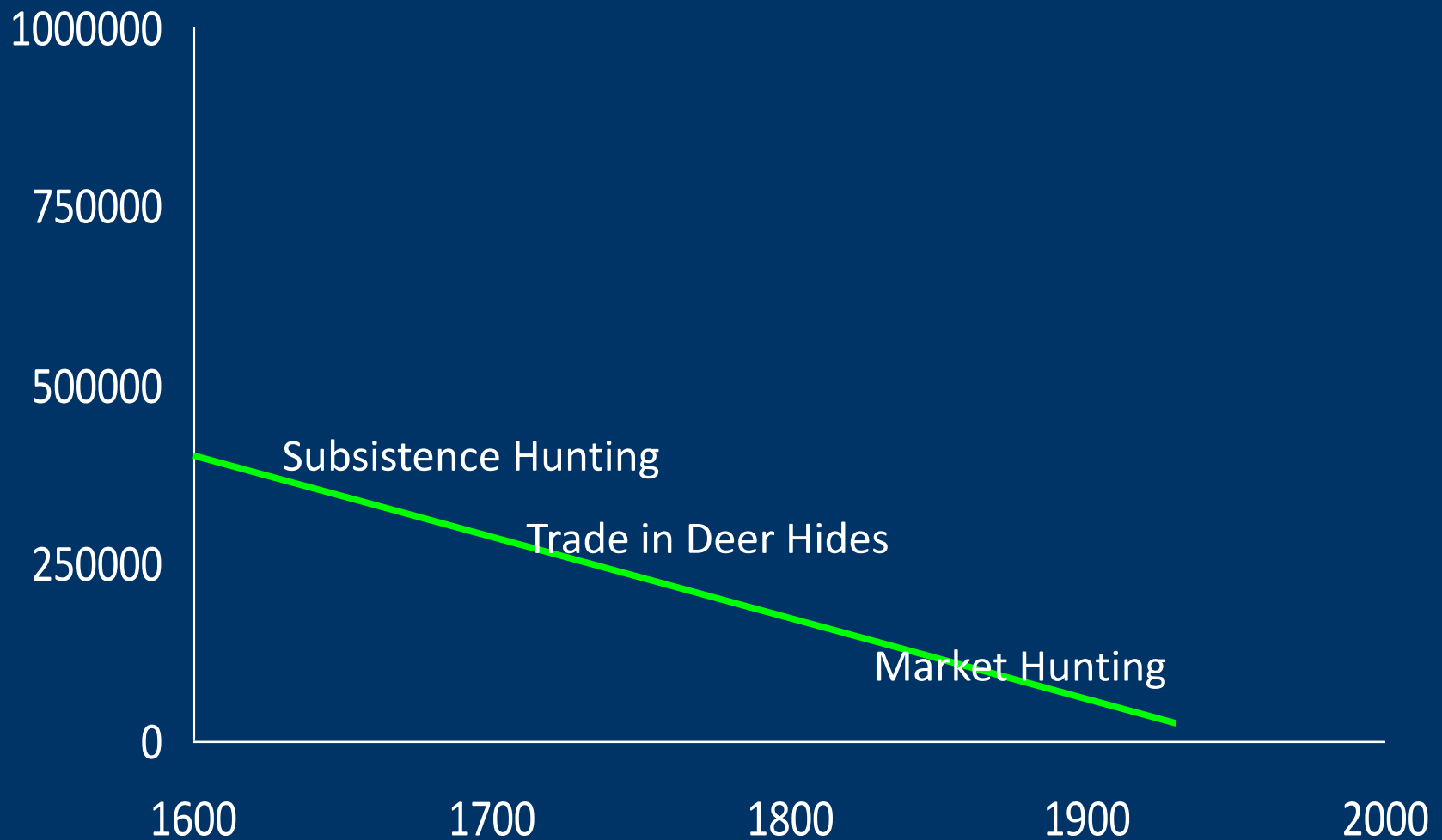
March 17, 2012



Deer Program History



Hypothetical Population Curve for Virginia's Deer Herd, 1600-1930

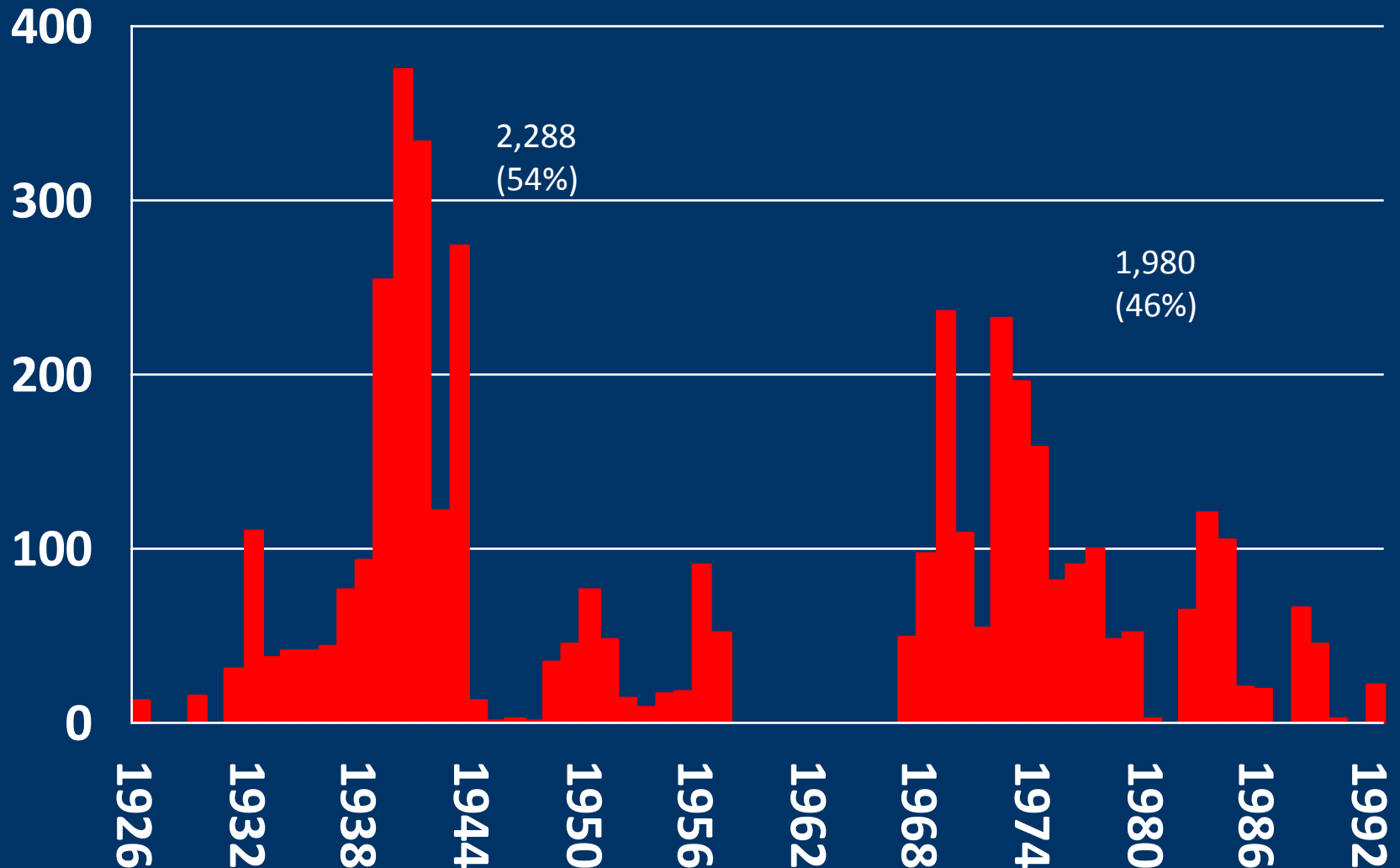


Factors Contributing to the Decline of White-tailed Deer

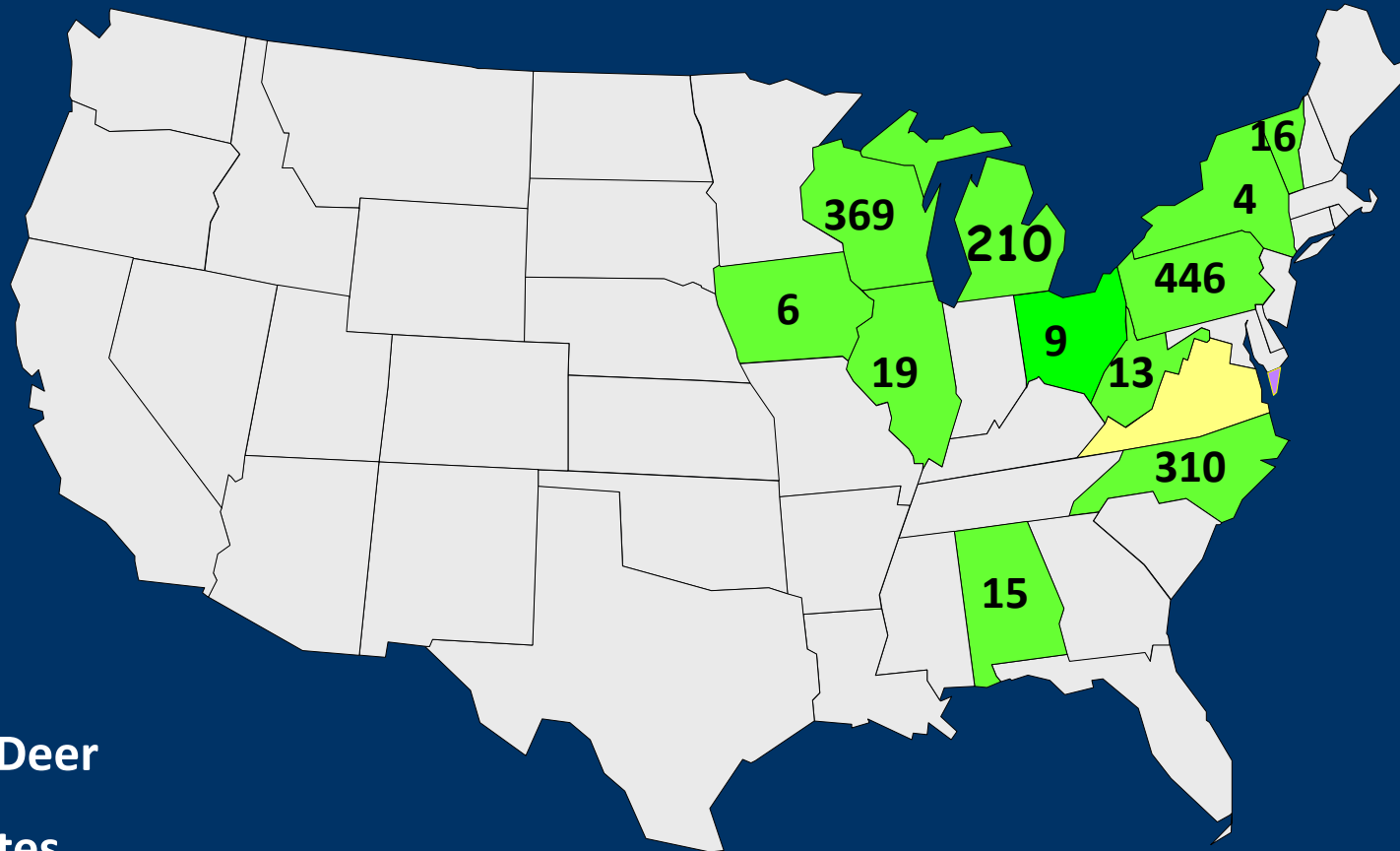
- Habitat loss and land use changes
- Inability to enforce laws
- Severe over-harvest



Virginia White-tailed Deer Restoration 1926-1992



Virginia's Stocking Sources, 1926-51

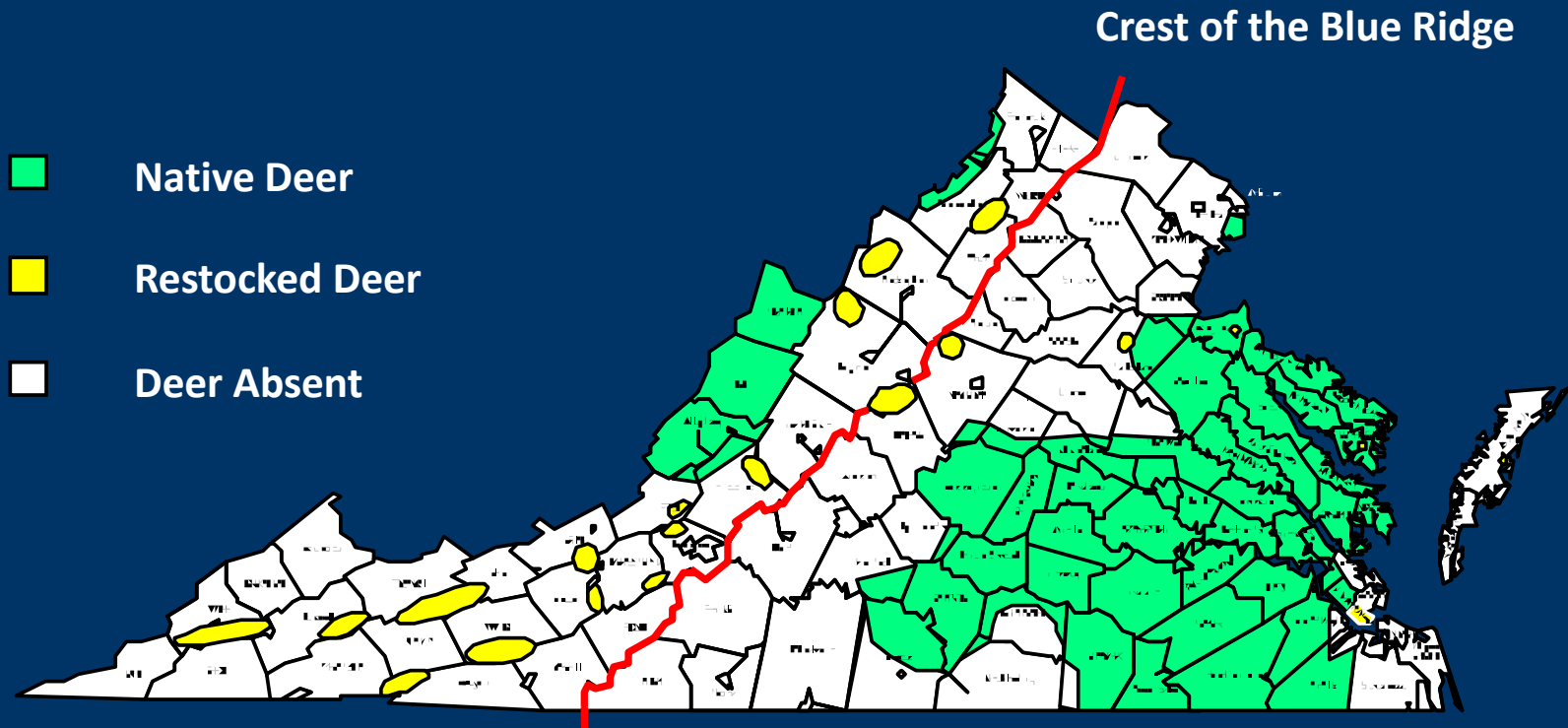


1,417 Deer

11 States

(1417/2087)68%

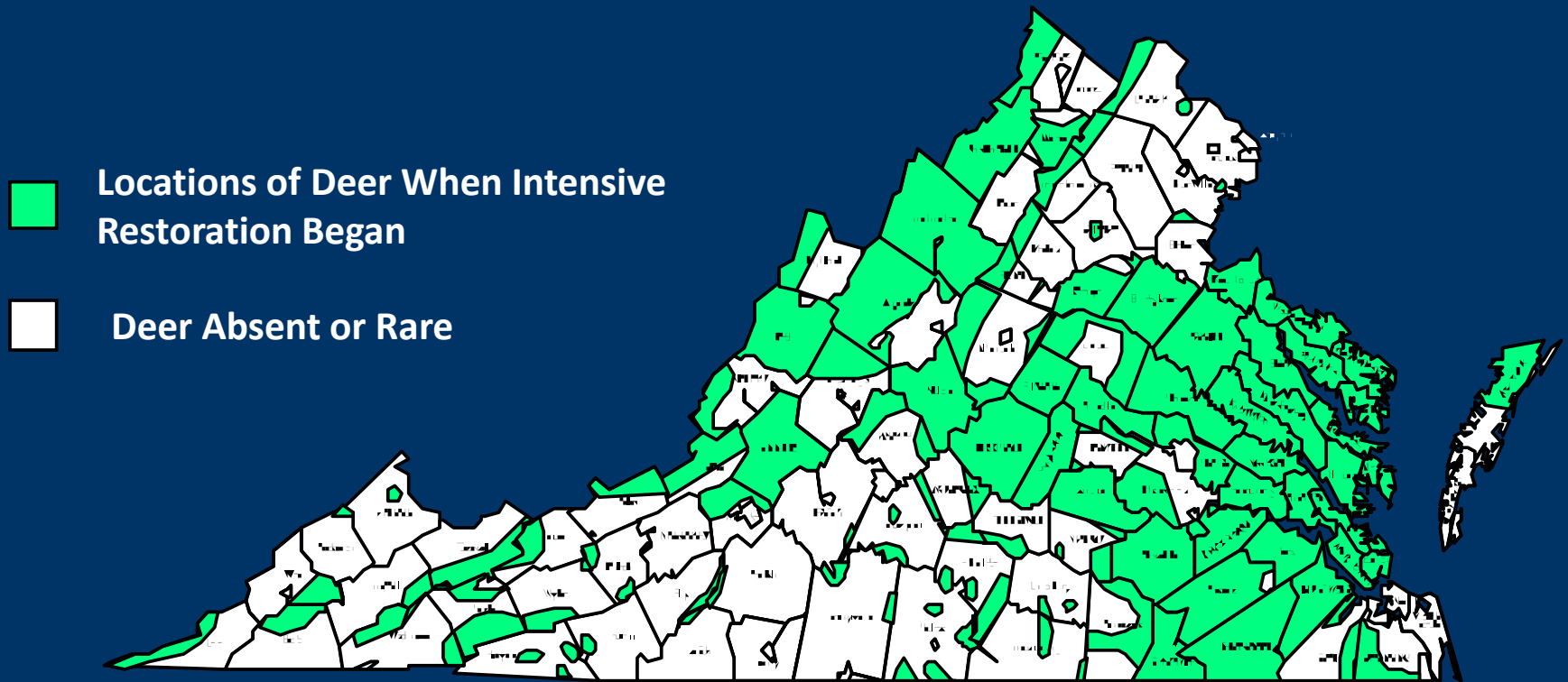
Virginia Deer Distribution in 1938



50,000

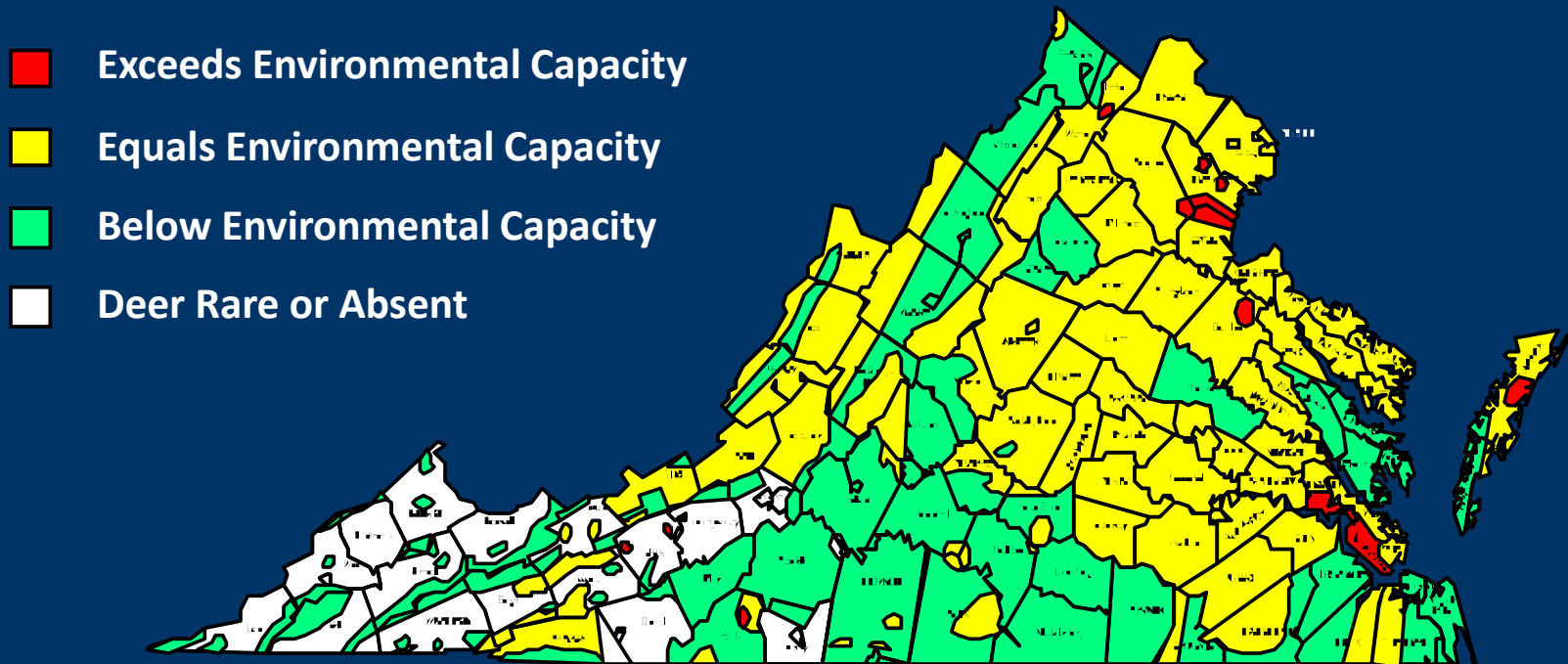


Virginia Deer Distribution in 1950



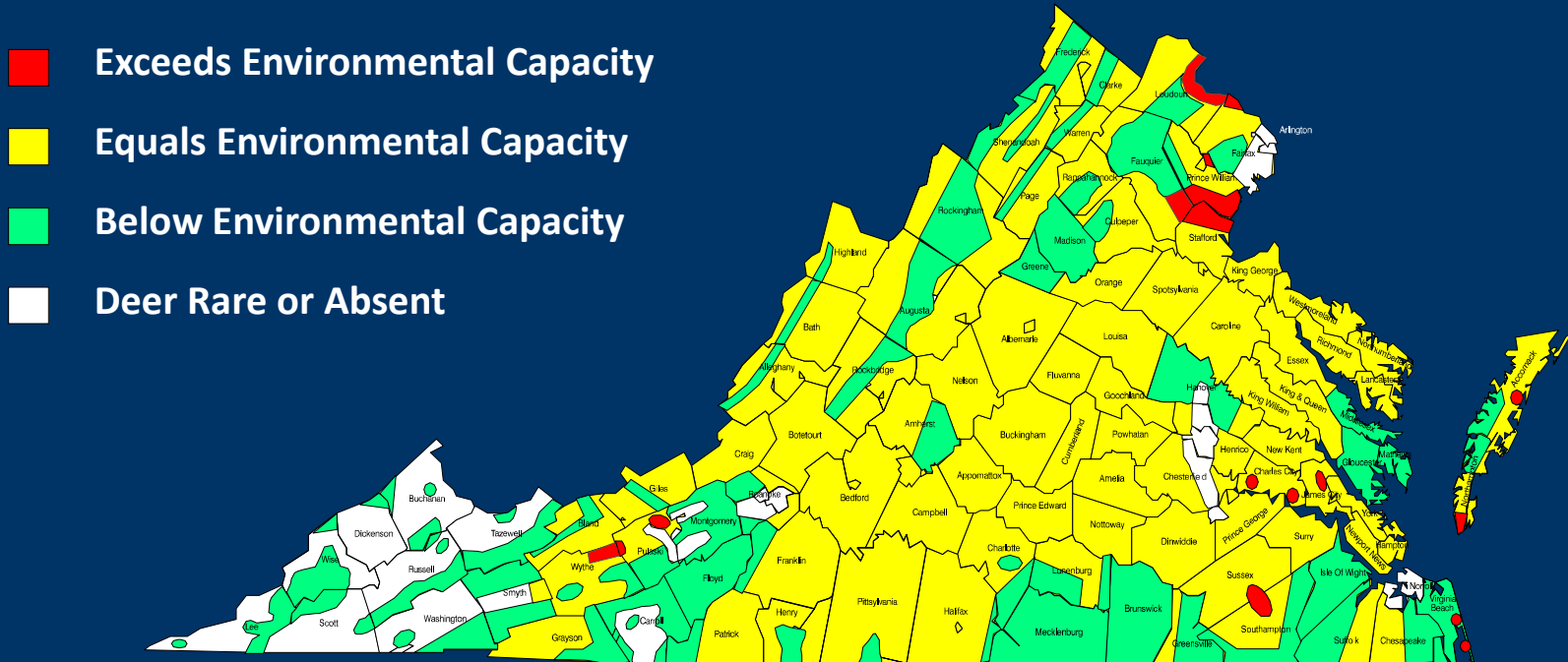
150,000

Virginia Deer Distribution in 1970



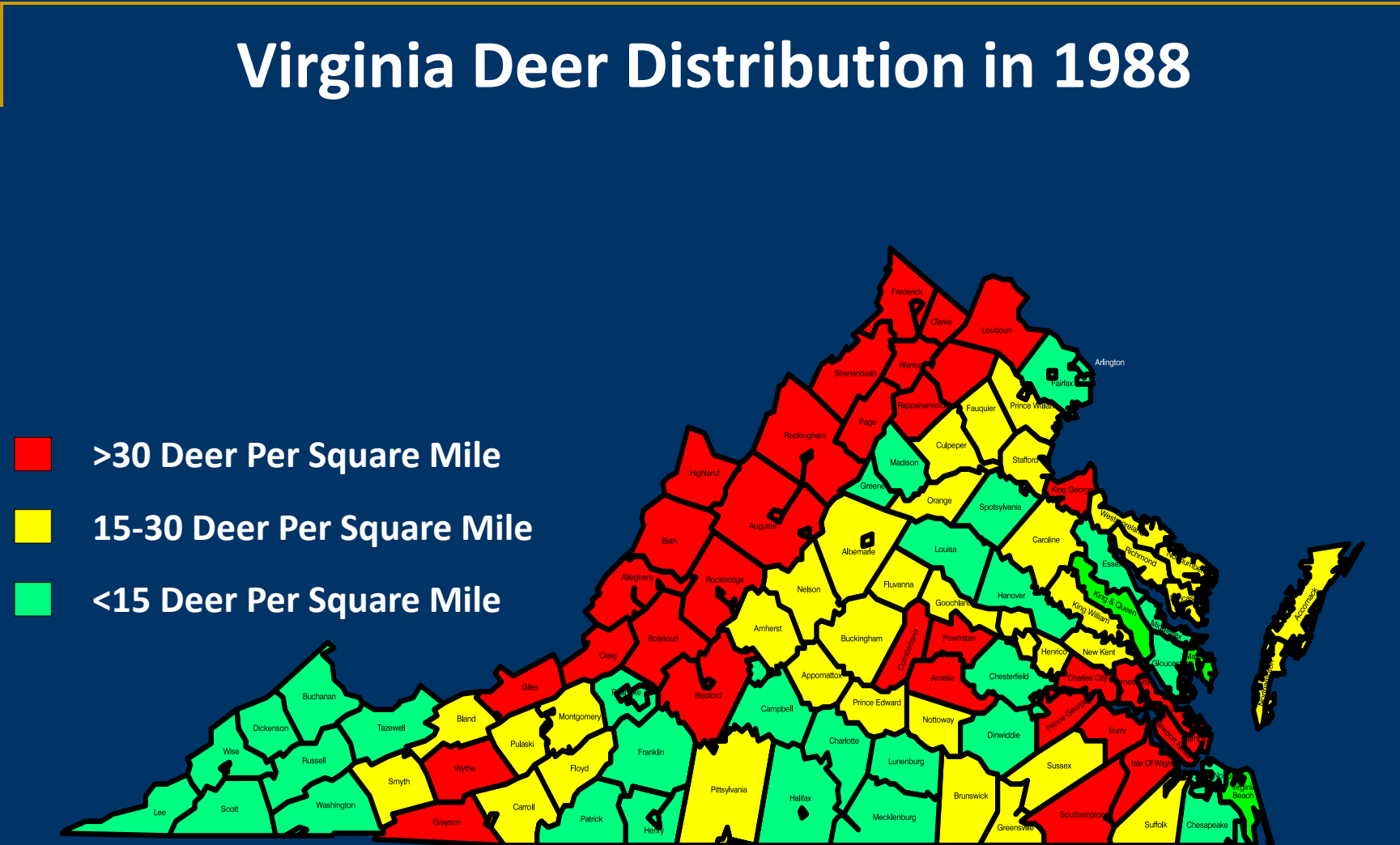
215,000

Virginia Deer Distribution in 1980



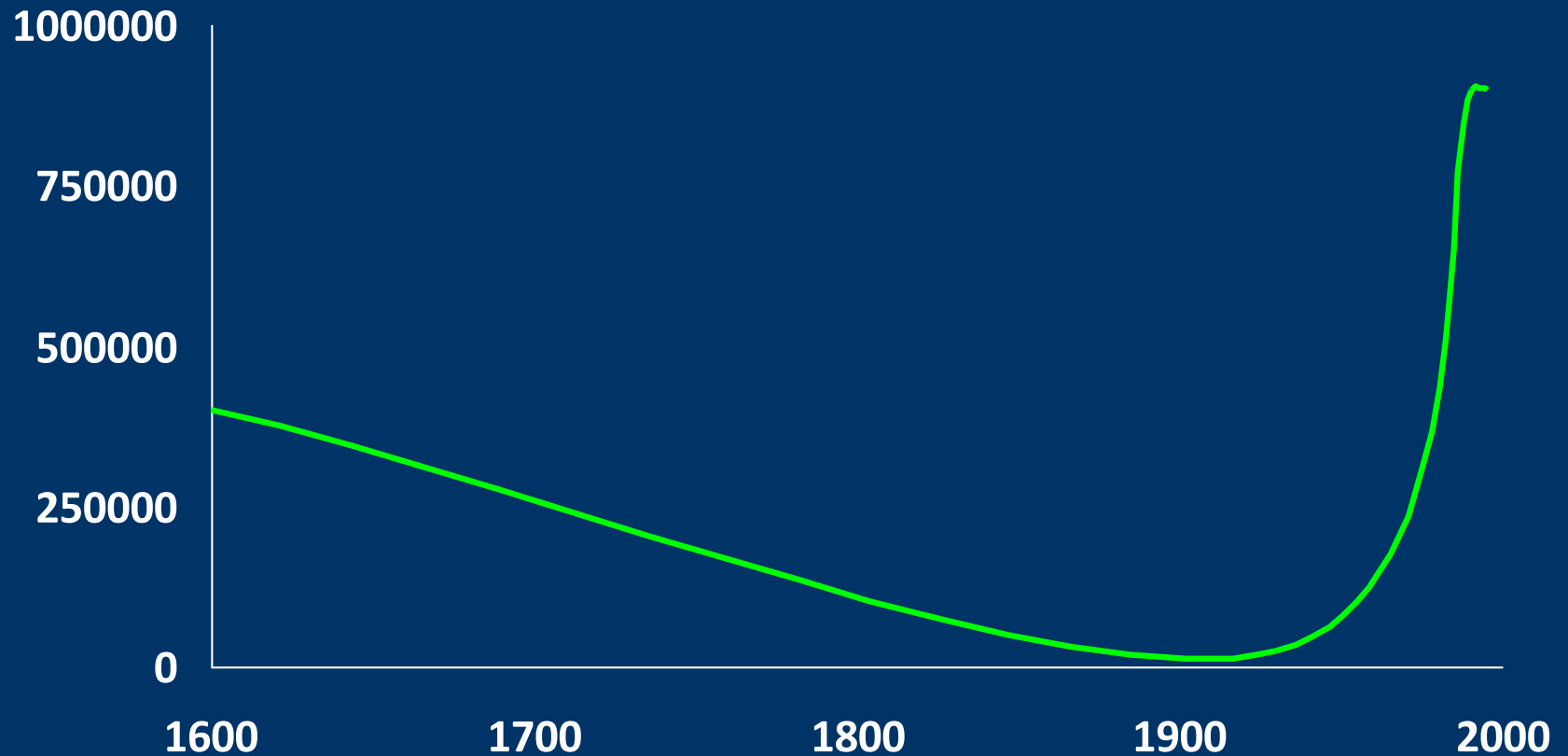
422,000

Virginia Deer Distribution in 1988



575,000

Hypothetical Population Curve for Virginia's Deer Herd, 1600-present



Factors Contributing to the Restoration of White-tailed Deer

- Forest regrowth and farm abandonment
- Enforcement of protective laws
- Creation of refuges
- Restocking and relocation efforts

Deer Habitat



Significant Deer Habitat Factors

- Food
- Cover
- Water
- Space

White-tailed Deer Food Requirements

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



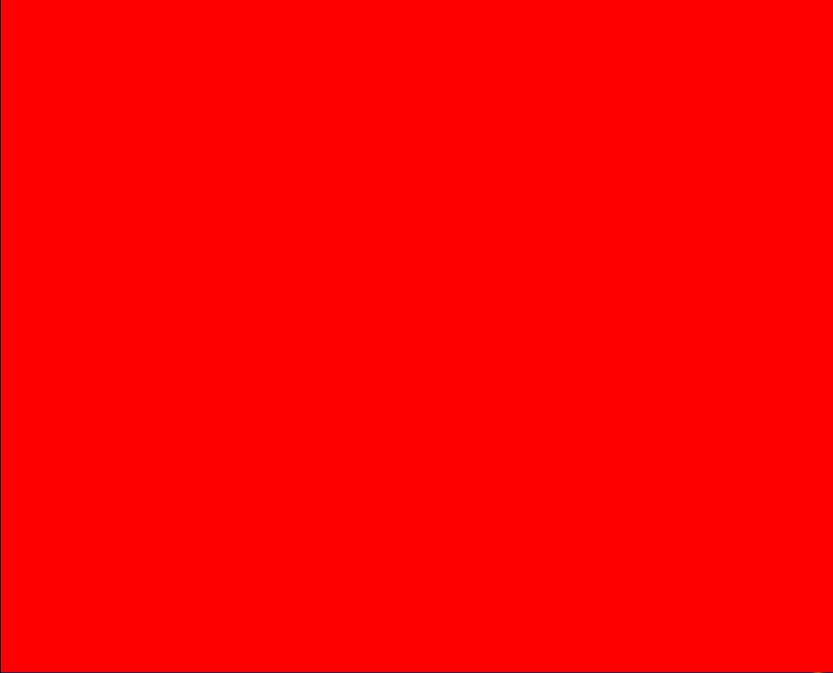
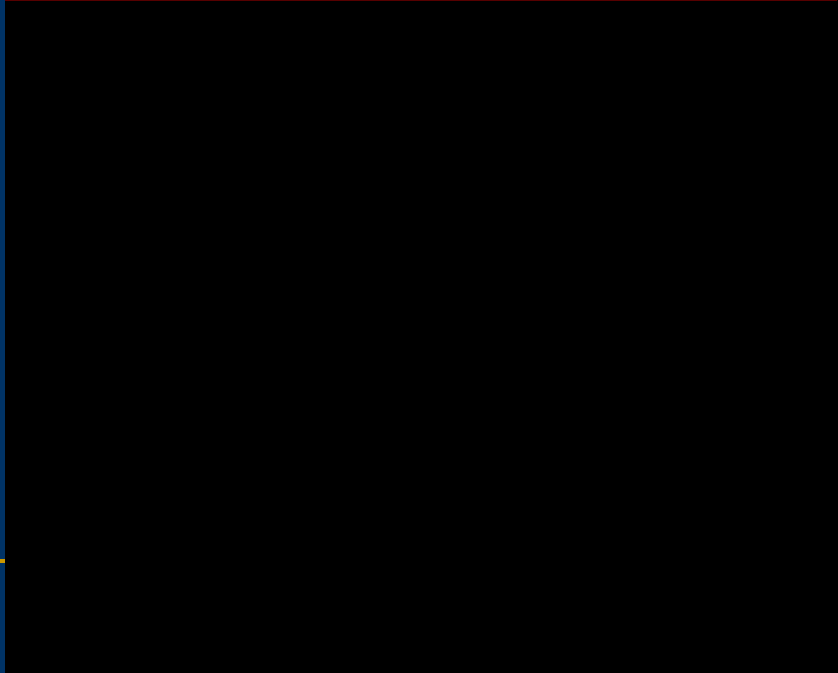
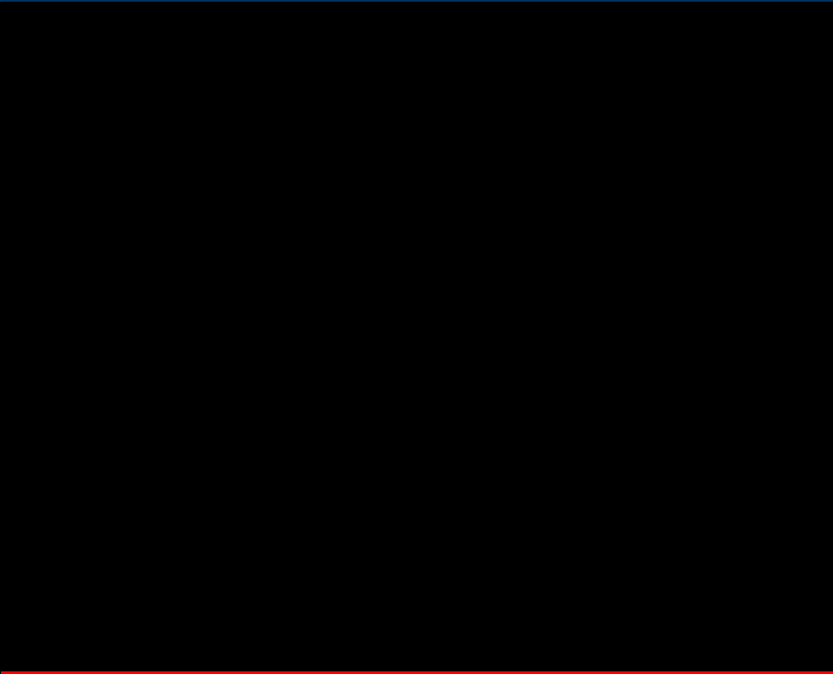
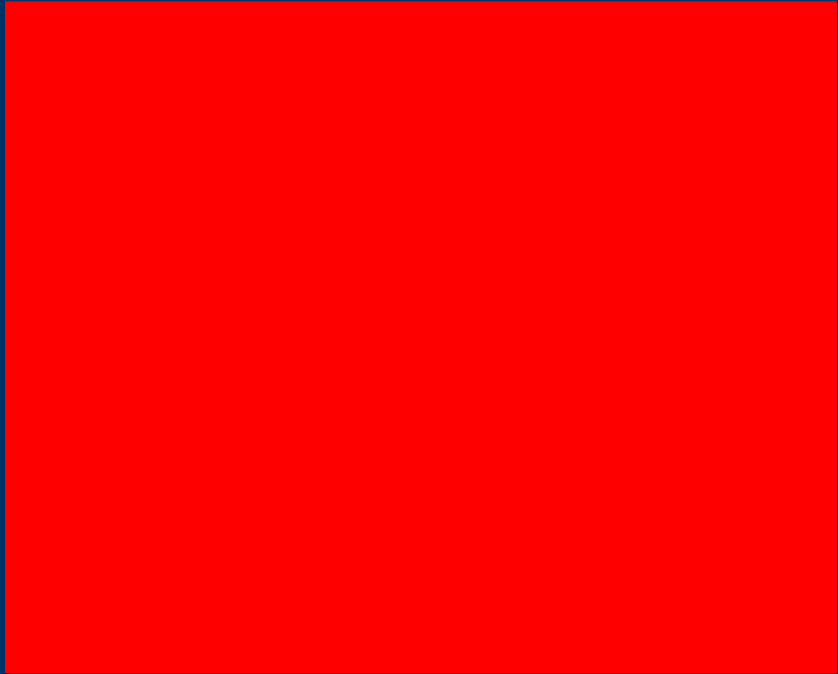


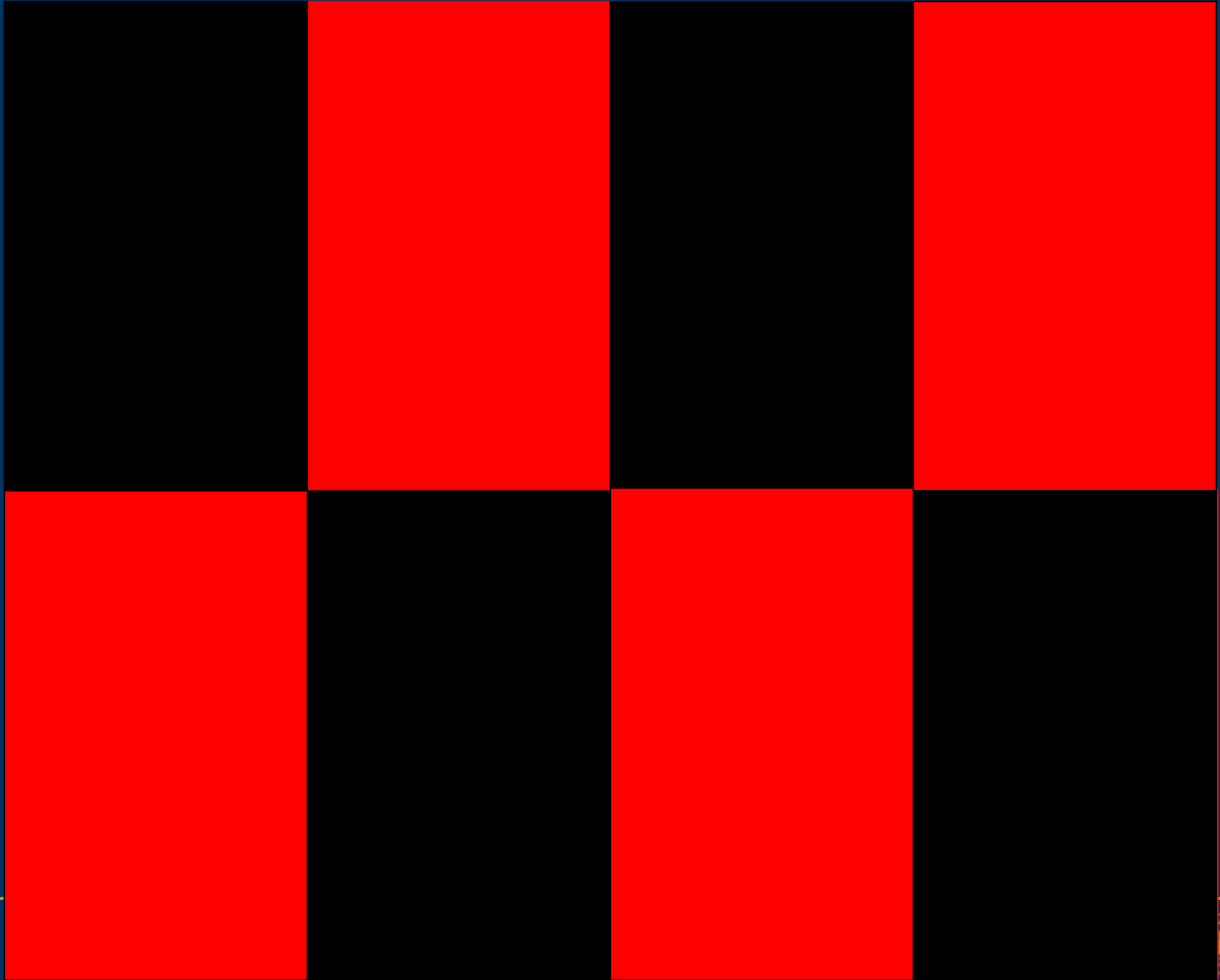
Human landscapes = good deer habitat

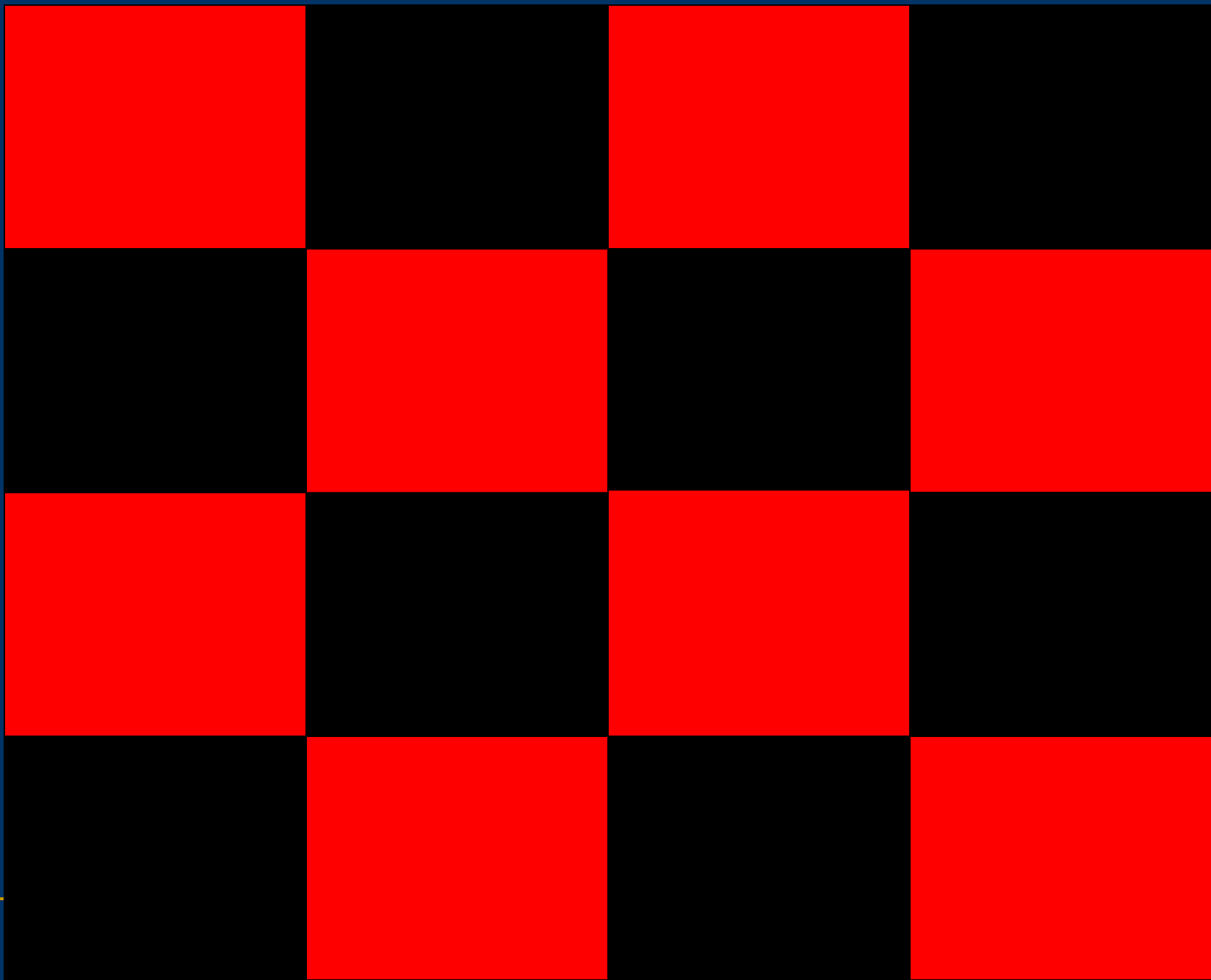
Clover

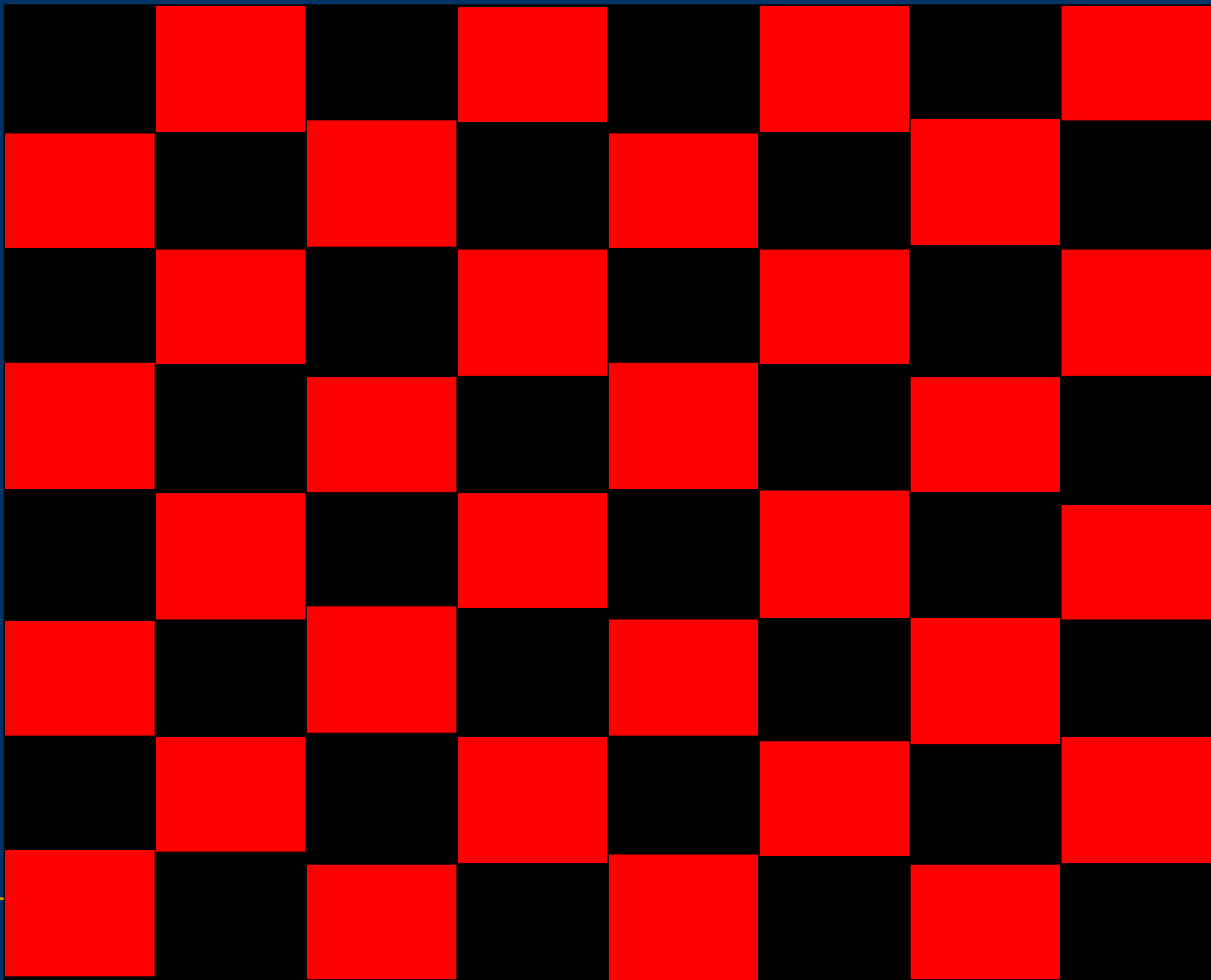
Briar Patch





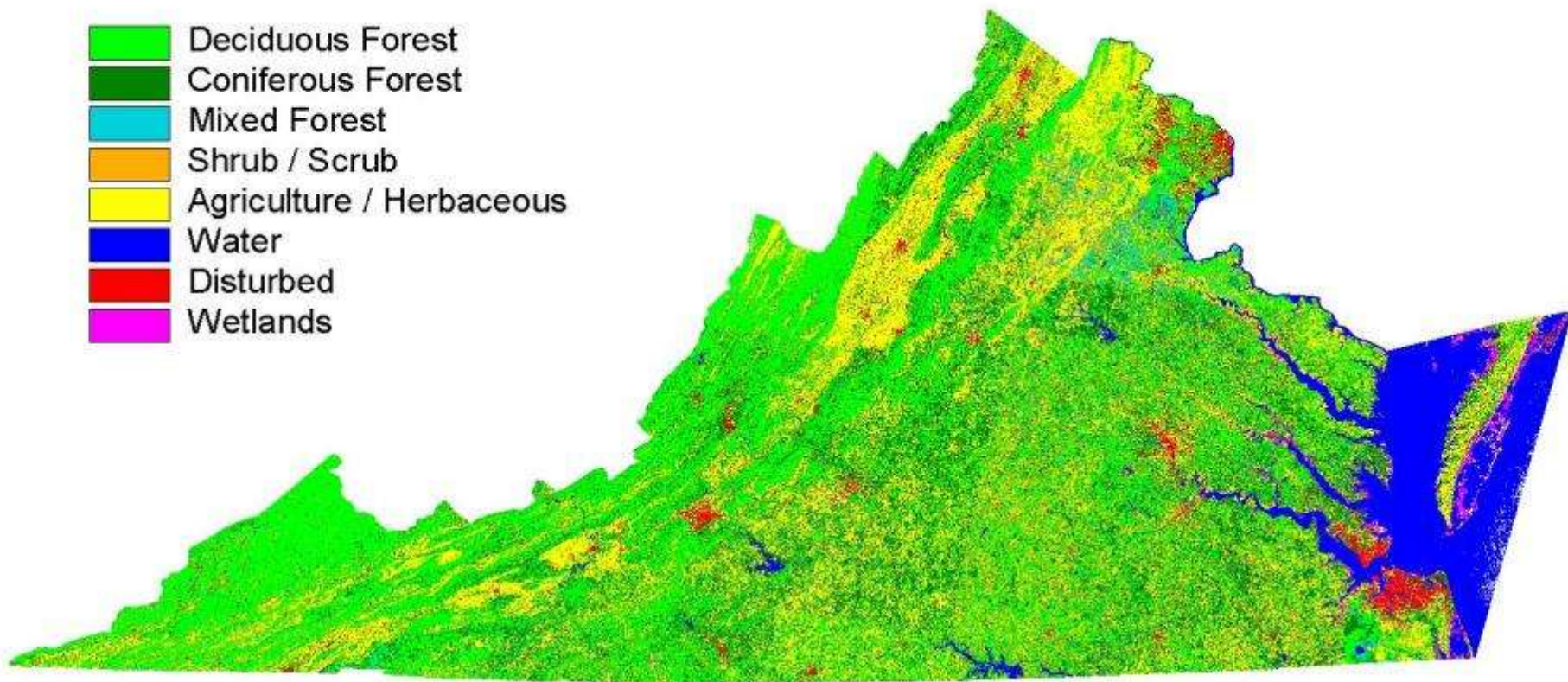








Land Cover of Virginia



Sources - VPI - CMI

VDGIF Fish and Wildlife Information Services



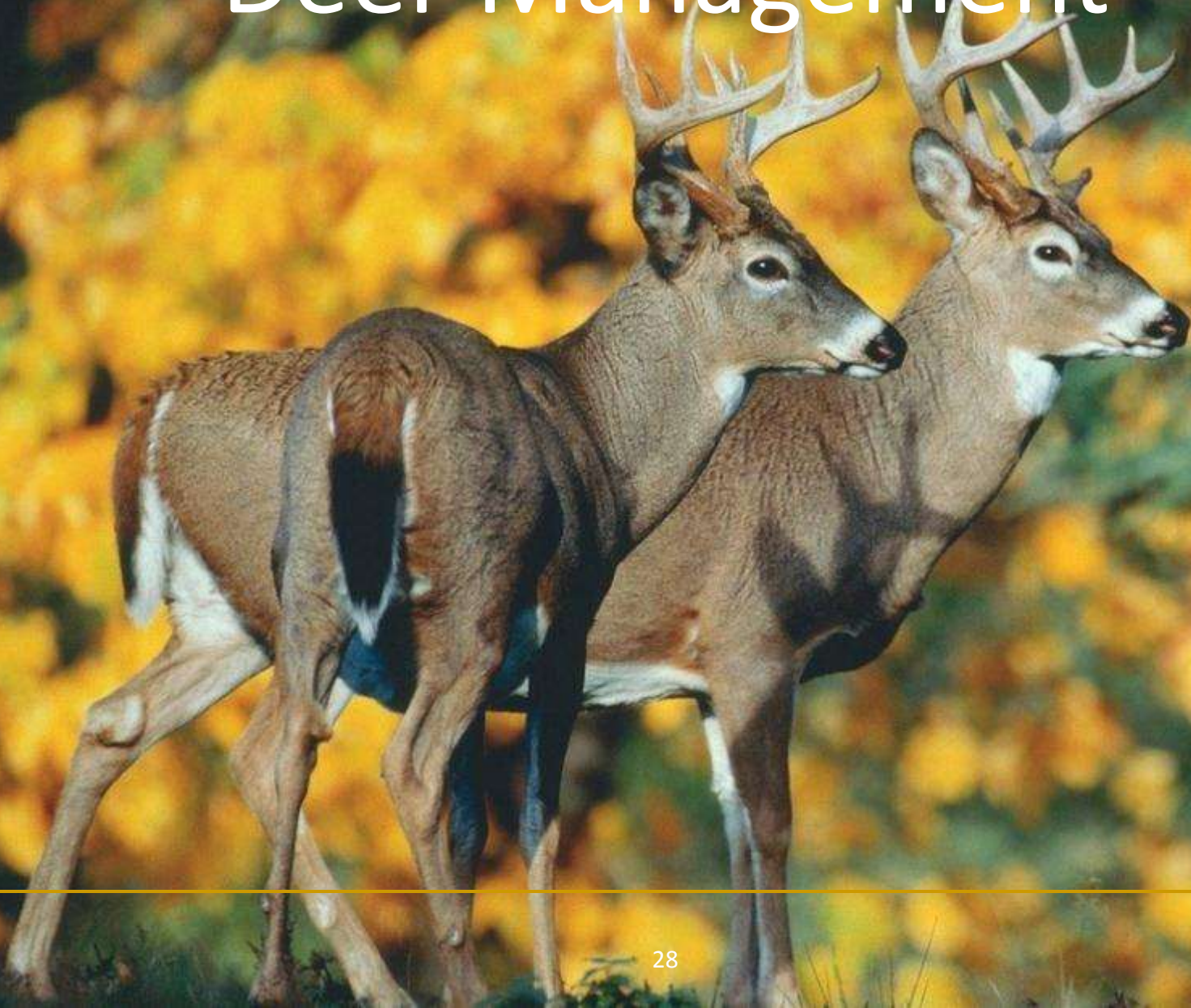
Figure 3. Google Earth Image Of Rockingham County Virginia.







Deer Management



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.

Cultural Carrying Capacity (CCC)

A term used to describe the maximum number of deer that can coexist compatibly with people.

It is not a function of the deer herd. It is a function of the tolerance of people to deer and deer impacts.



Competing Values

Farmers

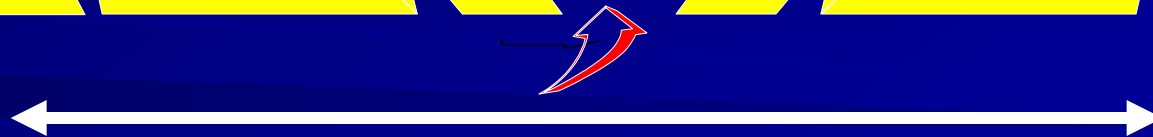
Tourists/Hikers

Commuters

Hunters

Forestry/ecosystem interests

Animal protection
interests



0

CCC

BCC









Deer Management Options

- Regulated Hunting
- Allow Nature to Take Its Course
- Trap and Transfer
- Fencing and Repellents
- Fertility Control
- Supplemental Feeding
- Sharpshooters
- Reintroduce Predators



Harvest Regulation

- general firearms either-sex deer hunting days
- season dates
- daily and season bag limits

Problems Associated With Overabundant Deer Herds

- Crop Damage
- Deer Vehicle Collisions
- Urban Deer Issues
- Deer Ecosystem Impacts



Problems Associated With Overabundant Deer Herds

- Crop damage

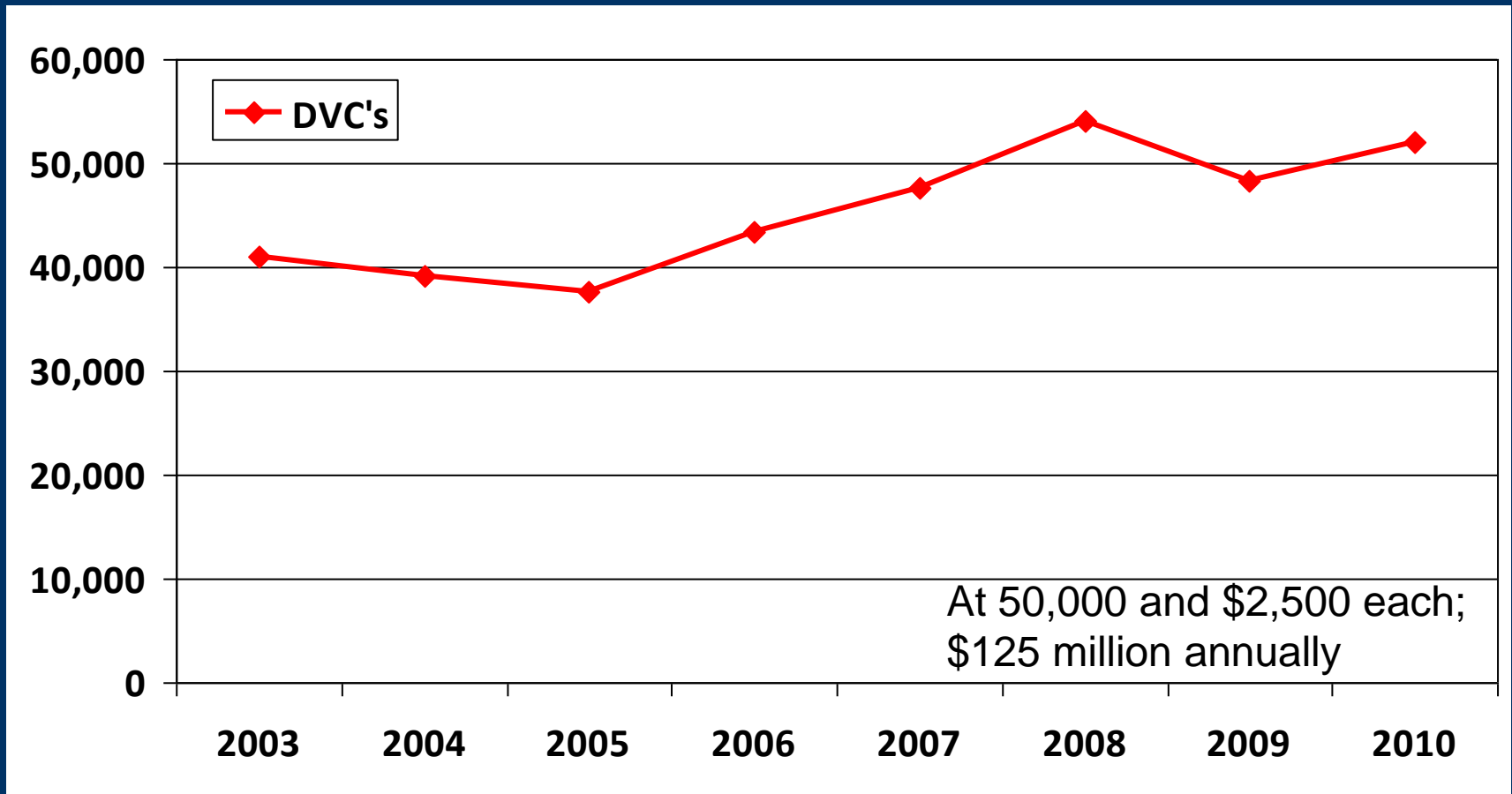


Problems Associated With Overabundant Deer Herds

■ Deer vehicle collisions



Deer Vehicle Collisions (State Farm Insurance)



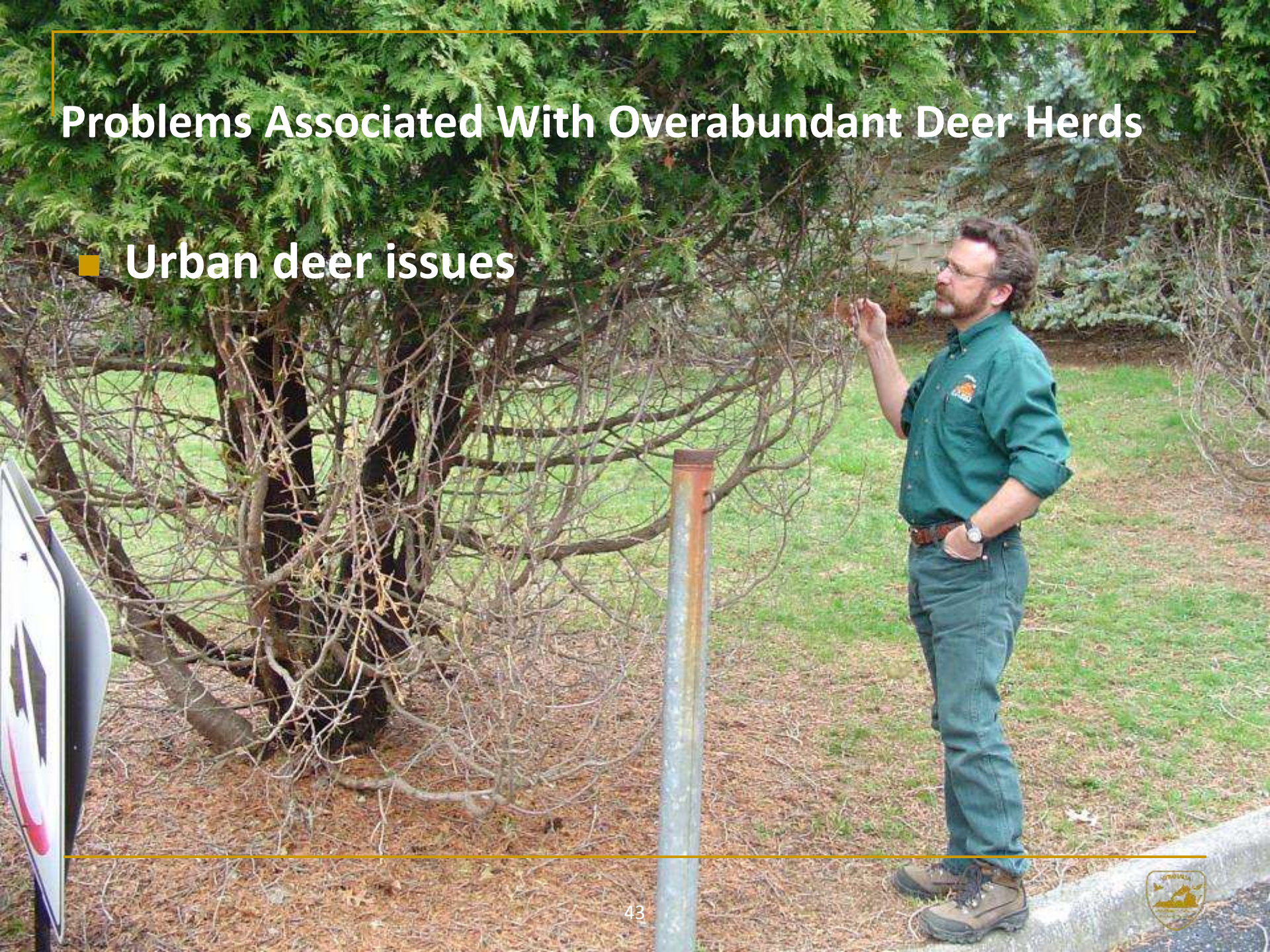
Deer Vehicle Collisions (State Farm)



Deer-vehicle collision frequency up 21 percent in five years
West Virginia continues domination of collision likelihood list

Problems Associated With Overabundant Deer Herds

■ Urban deer issues



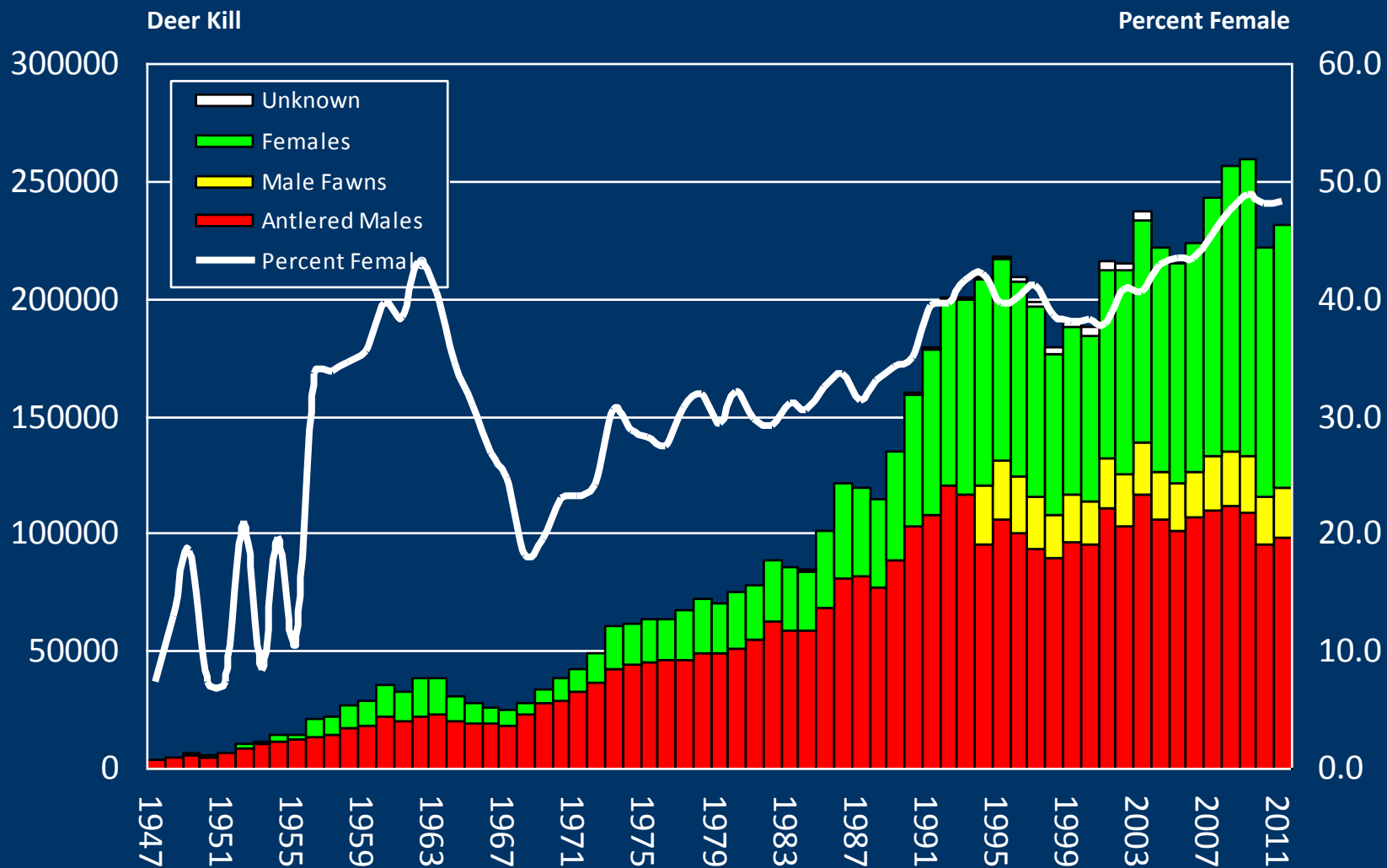
Problems Associated With Overabundant Deer Herds

- Deer ecosystem impacts



Virginia Deer Population Status

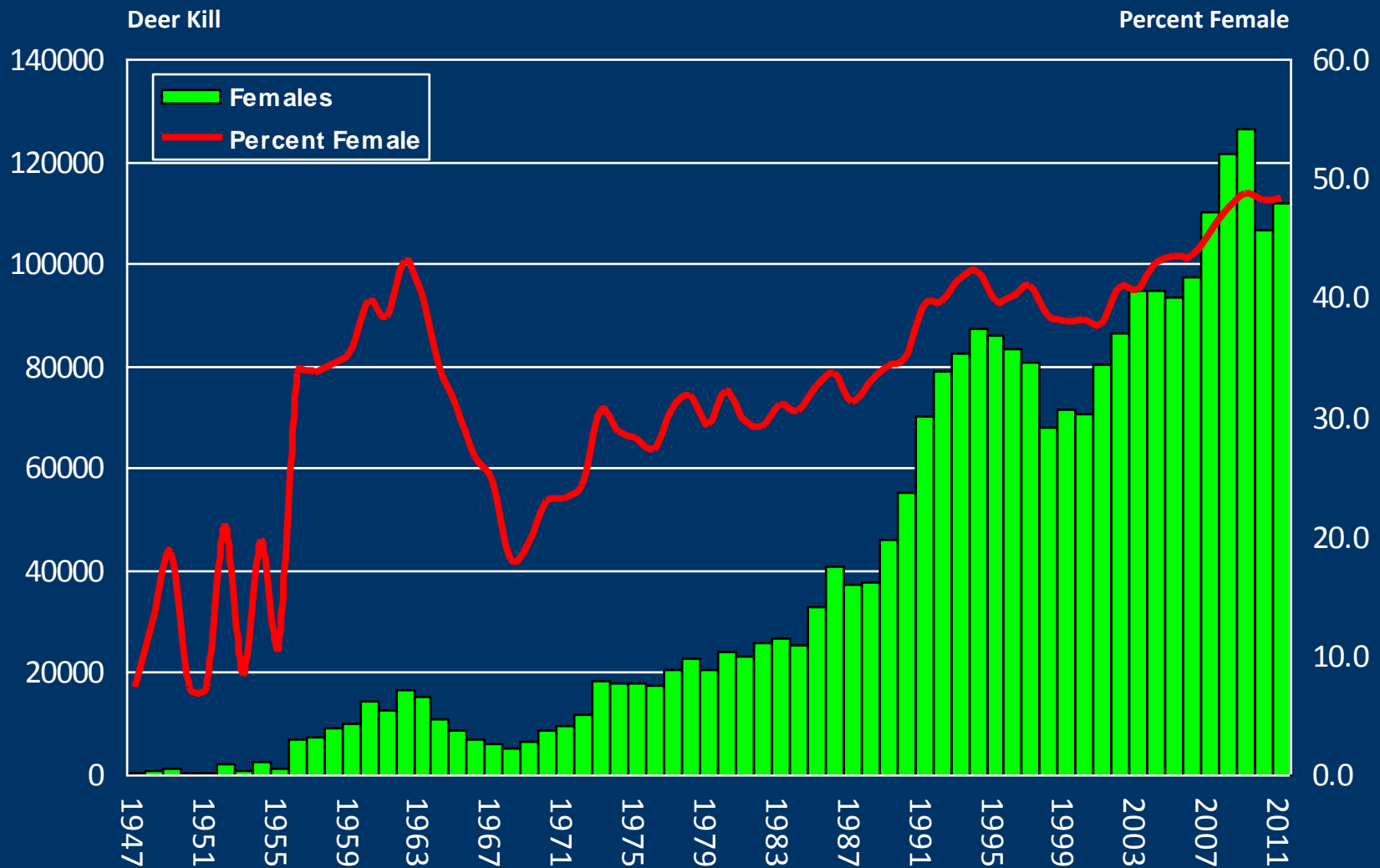




Virginia deer kill 1947-present



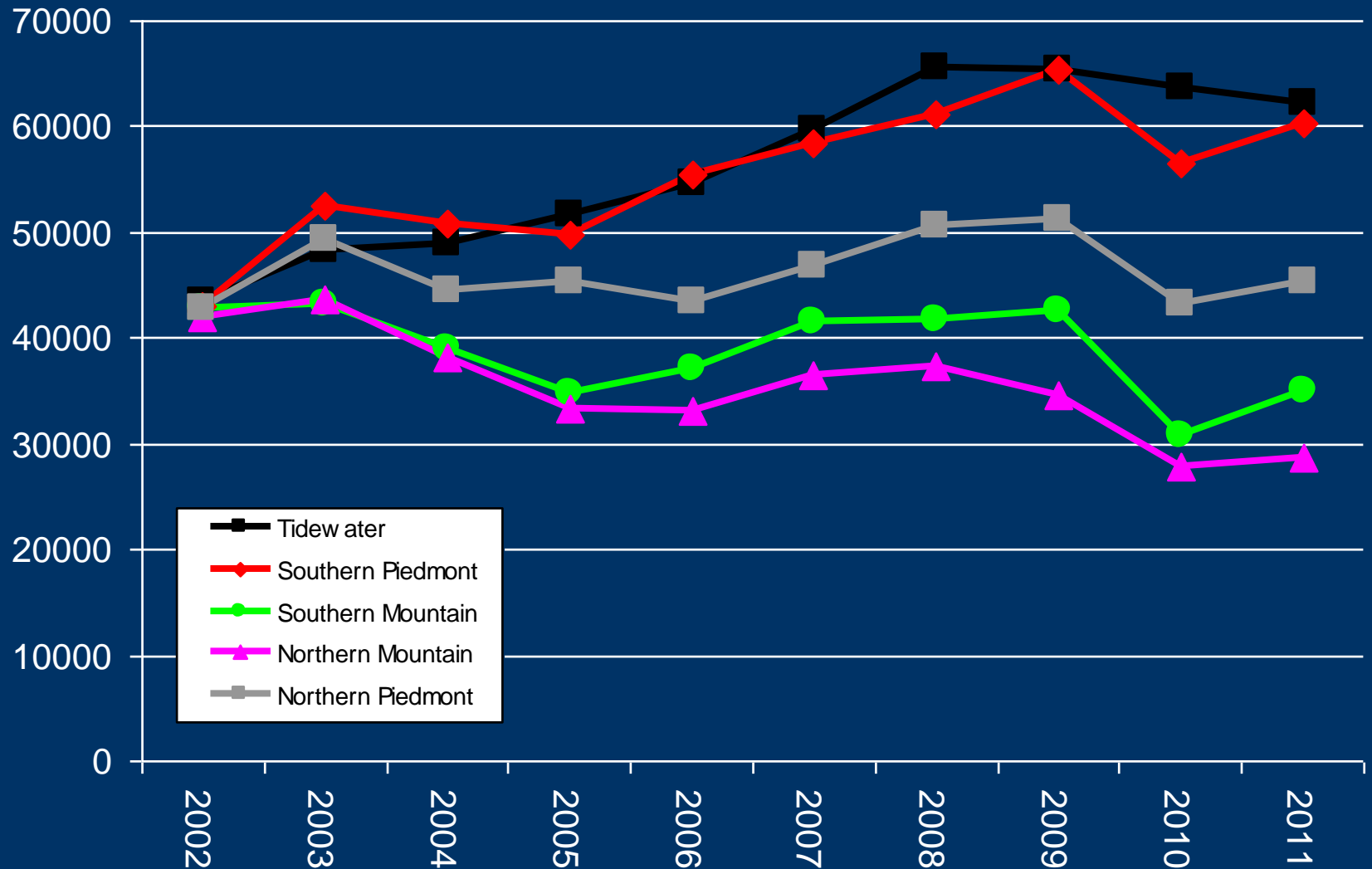




Virginia female deer kill 1947-present.

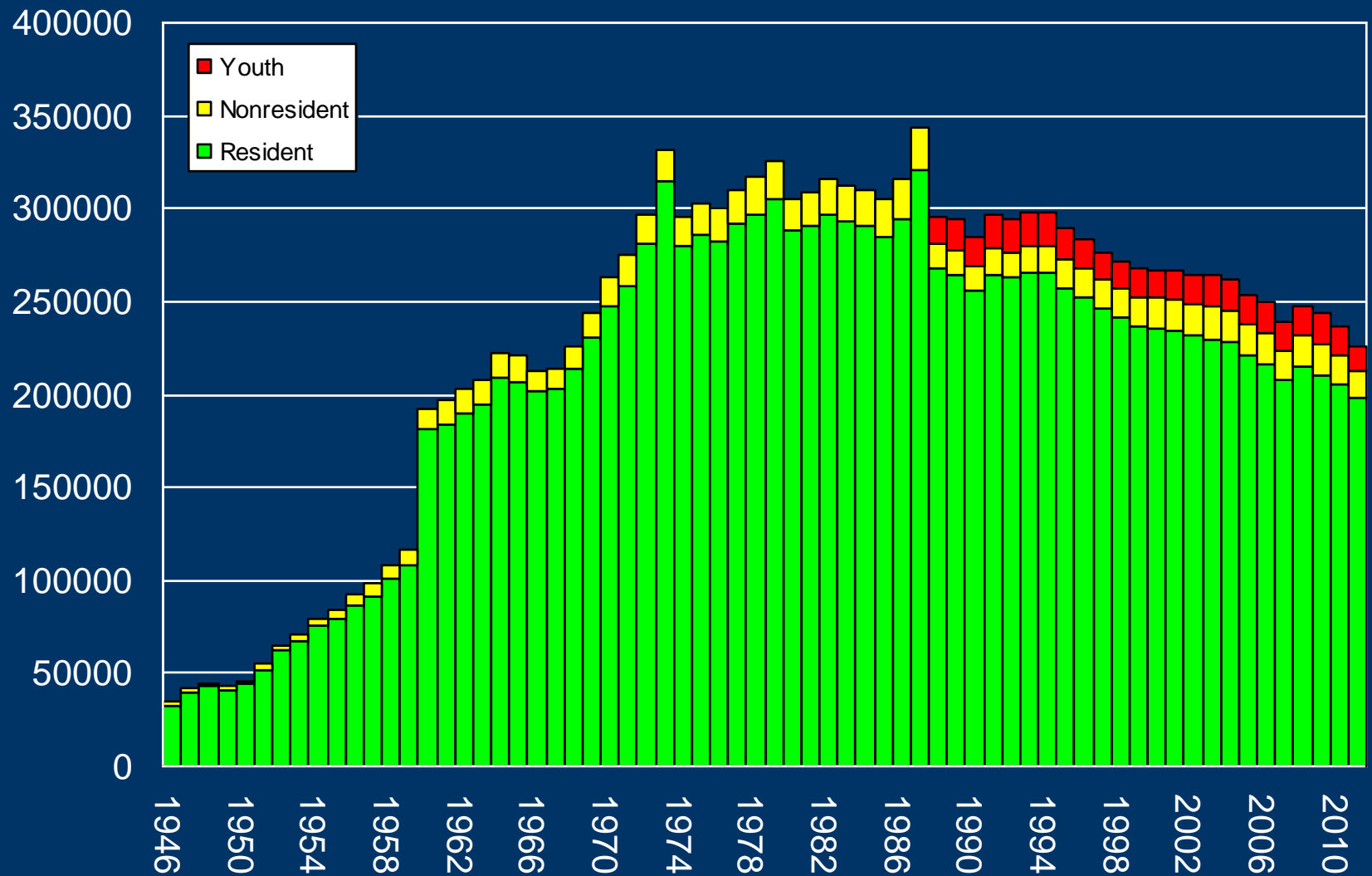


Deer Kill



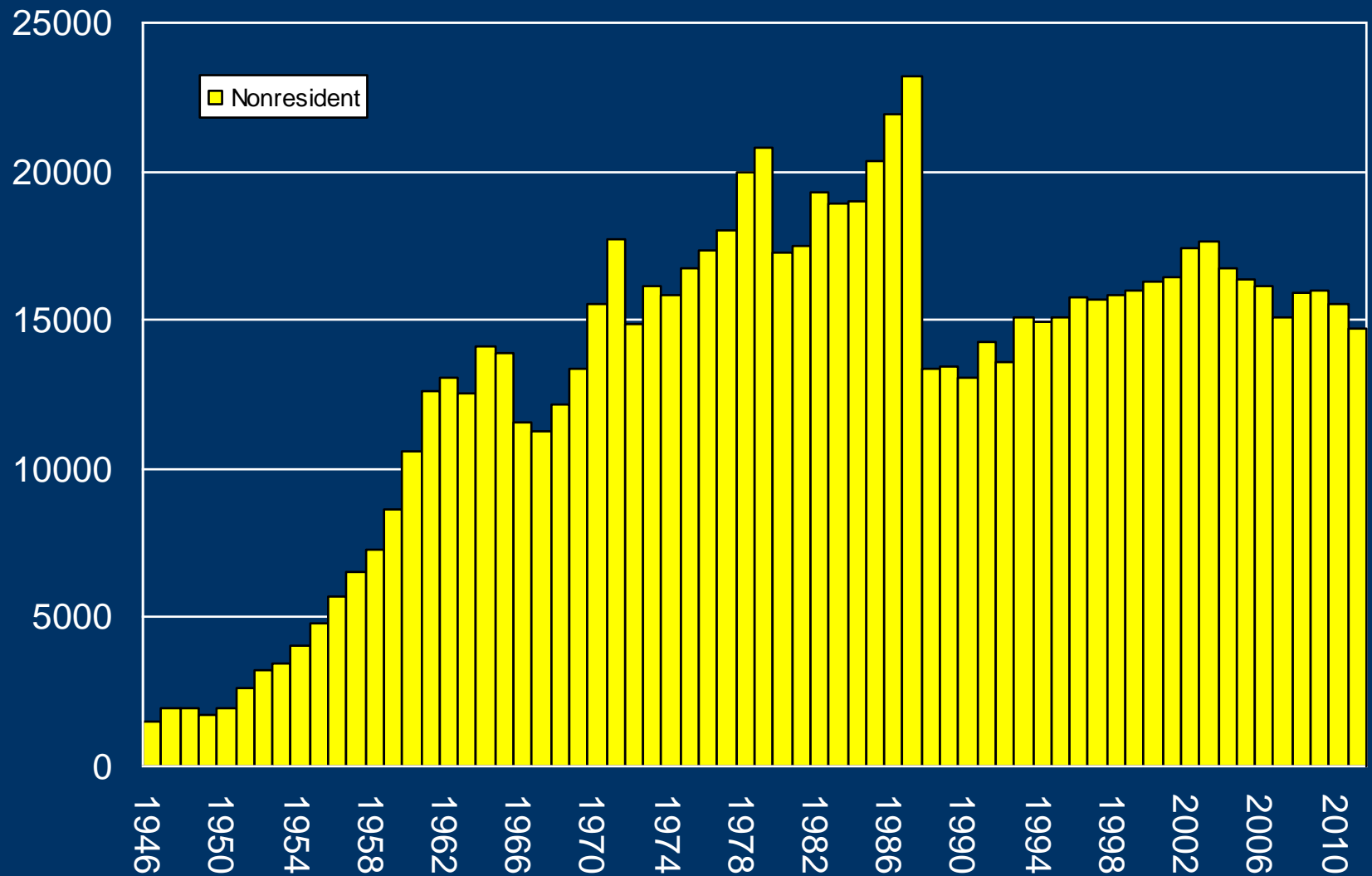
Virginia deer kill by physiographic region, last 10 years.





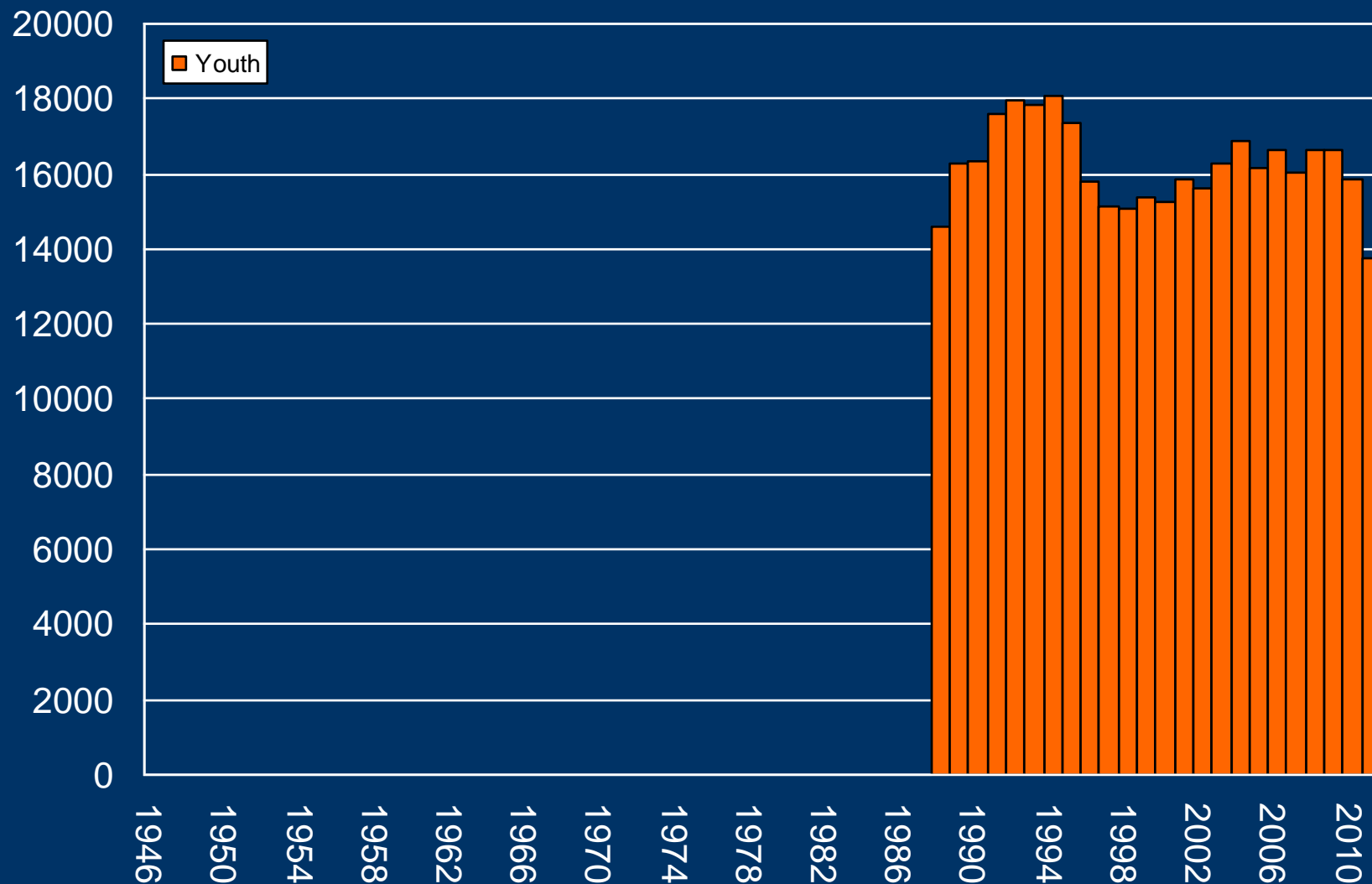
Virginia big game license sales, 1946-present.





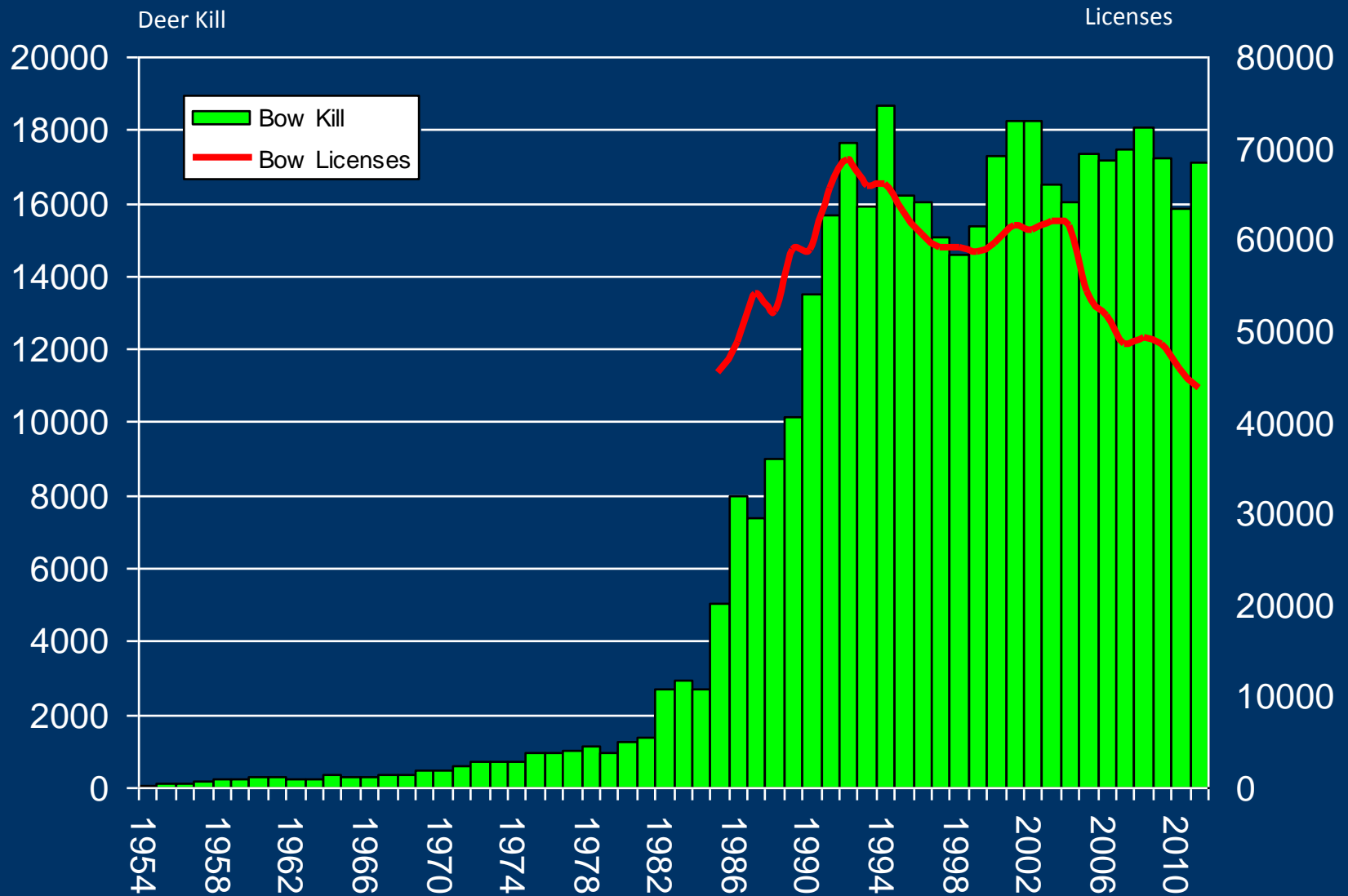
Virginia nonresident big game license sales, 1946-present.





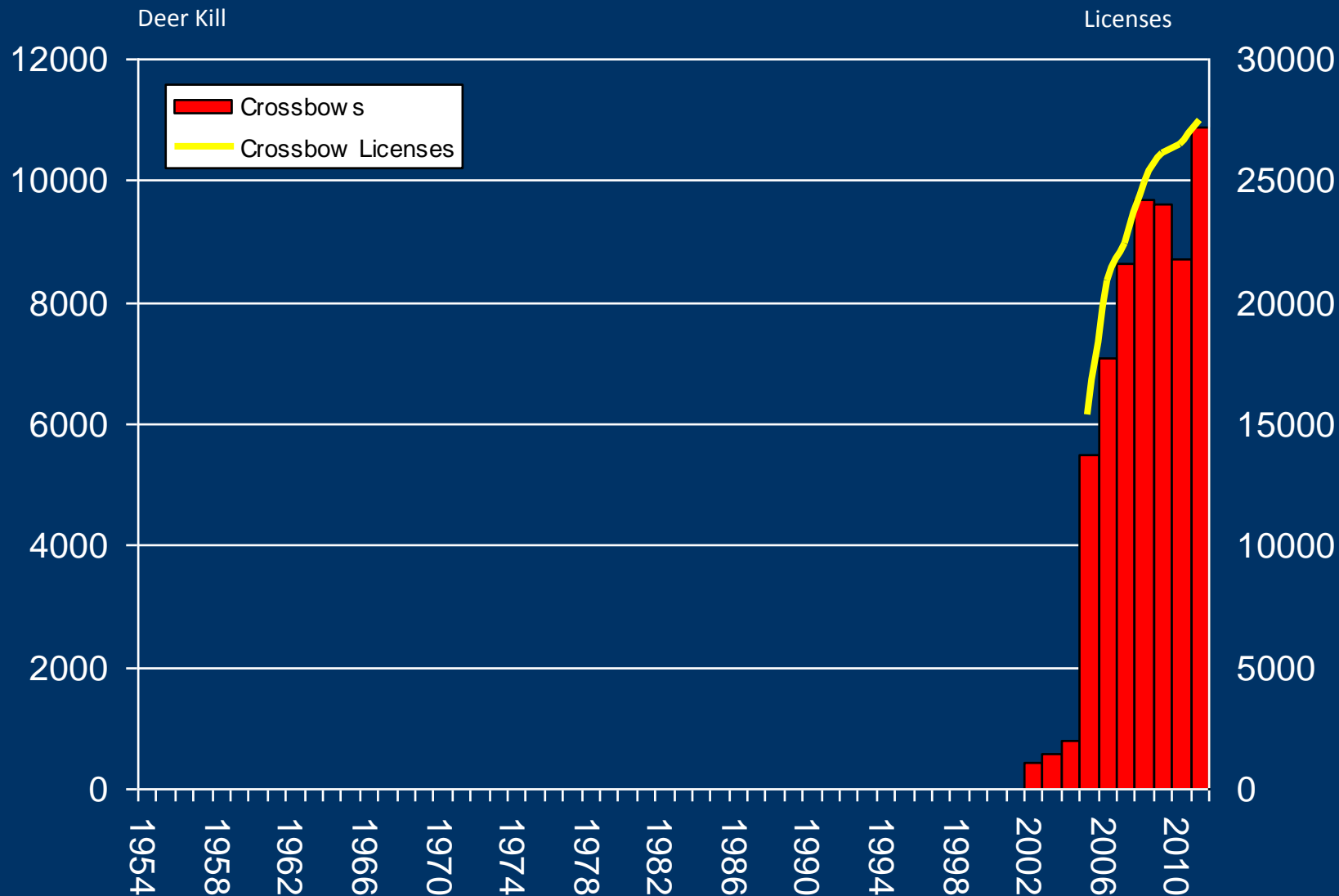
Virginia youth big game license sales, 1946-present.





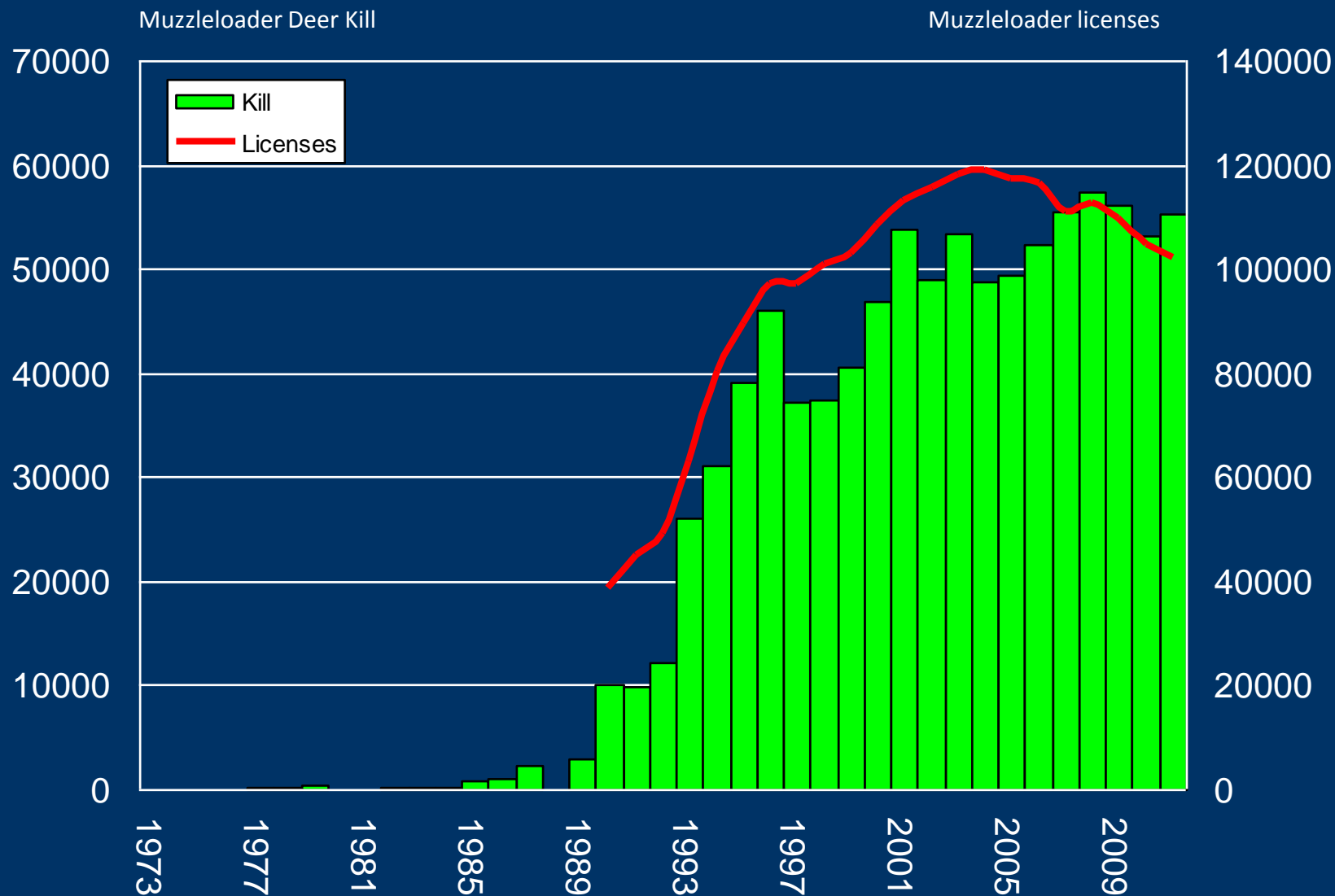
Virginia archery deer kill and license sales, 1954-present.





Virginia crossbow deer kill and license sales, 2002-present.





Virginia muzzleloader deer kill and license sales, 1973-9resent.



2011

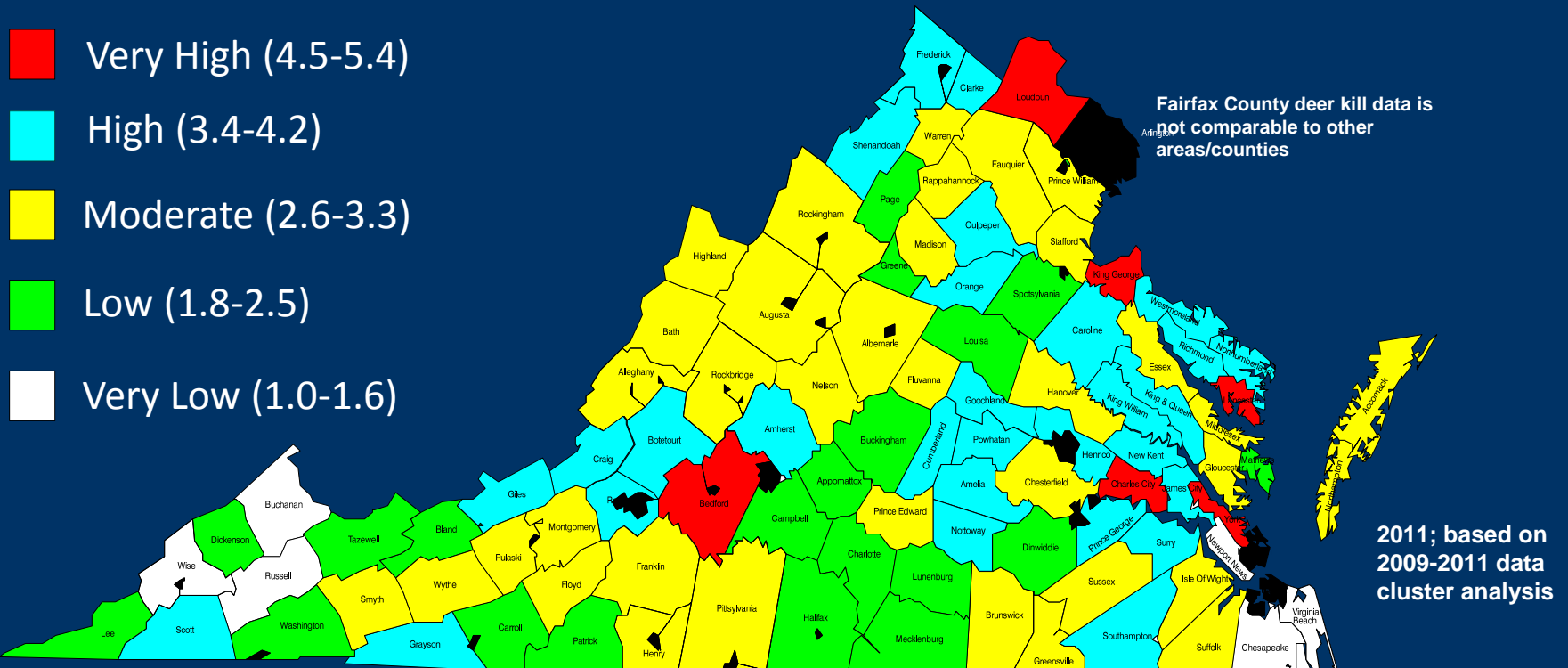


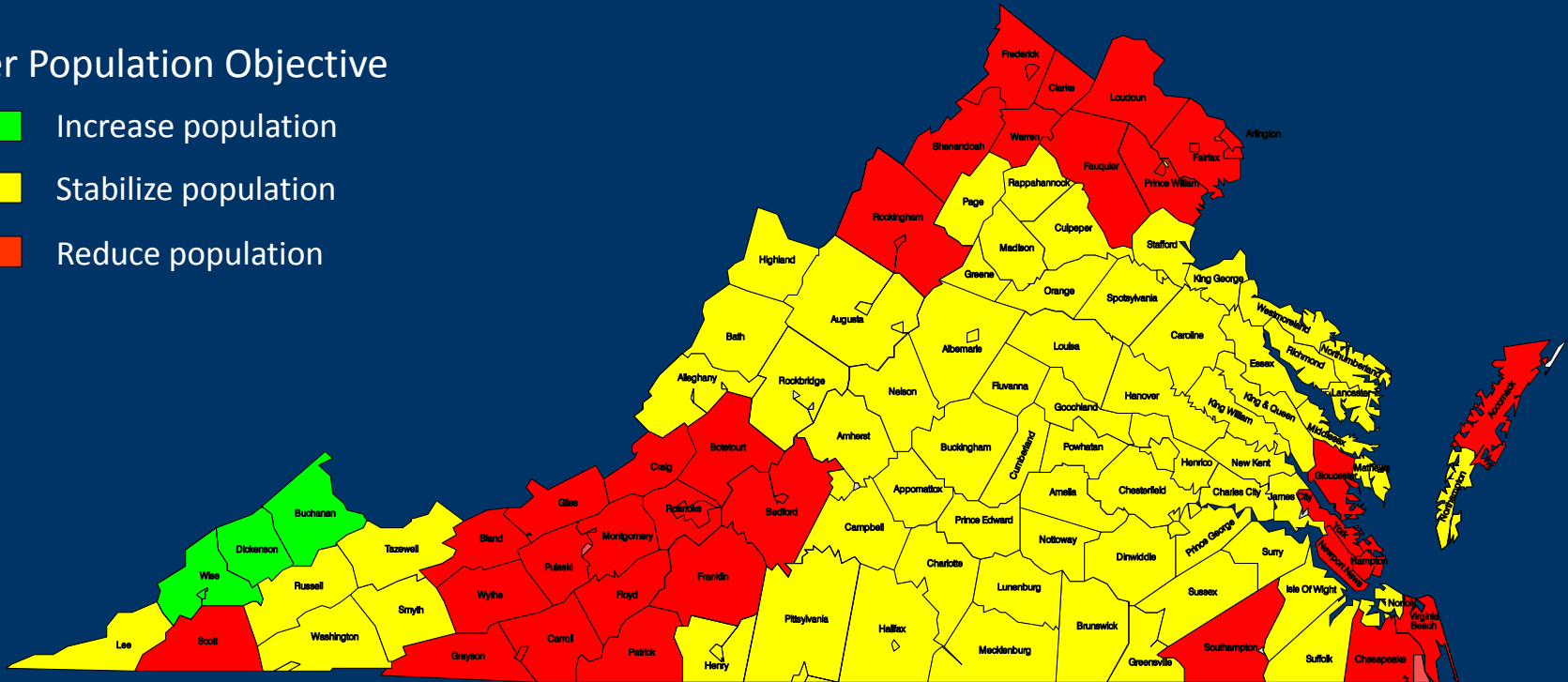
Figure 2. 2011 private land relative deer population abundance by management unit.

Index is based on a 3-year average of antlered bucks killed per square mile of estimated deer habitat.



Deer Population Objective

- Increase population
- Stabilize population
- Reduce population



Private land deer population management objective by management unit.



Deer Population Objective

- Increase population
- Stabilize population
- Reduce population

Deer Population 10 Year Trend

- ↑ Increasing population index
- ↓ Declining population index
- Units without an arrow are stable

2011

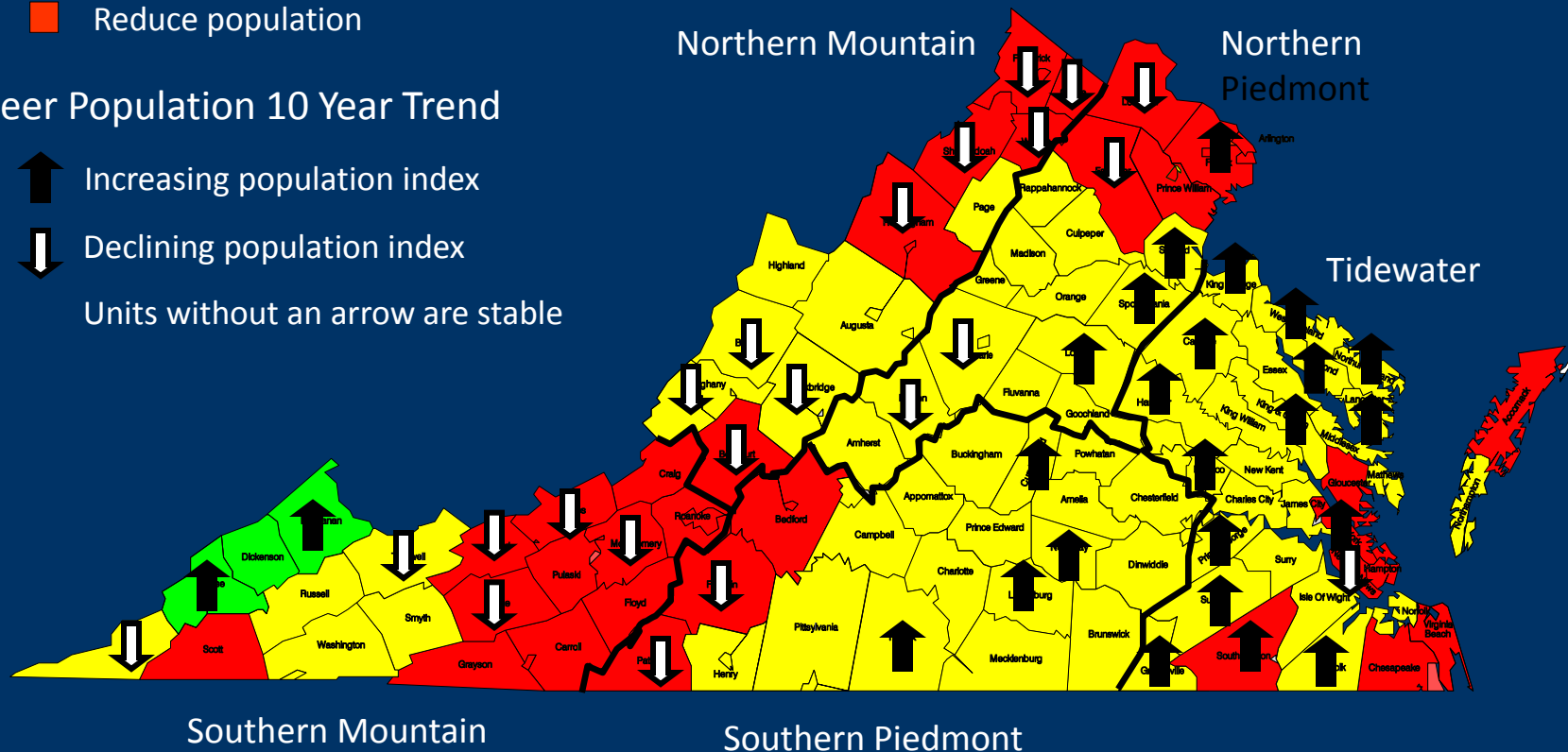


Figure 3. 2011 private land deer population status by management unit (10 year trend).





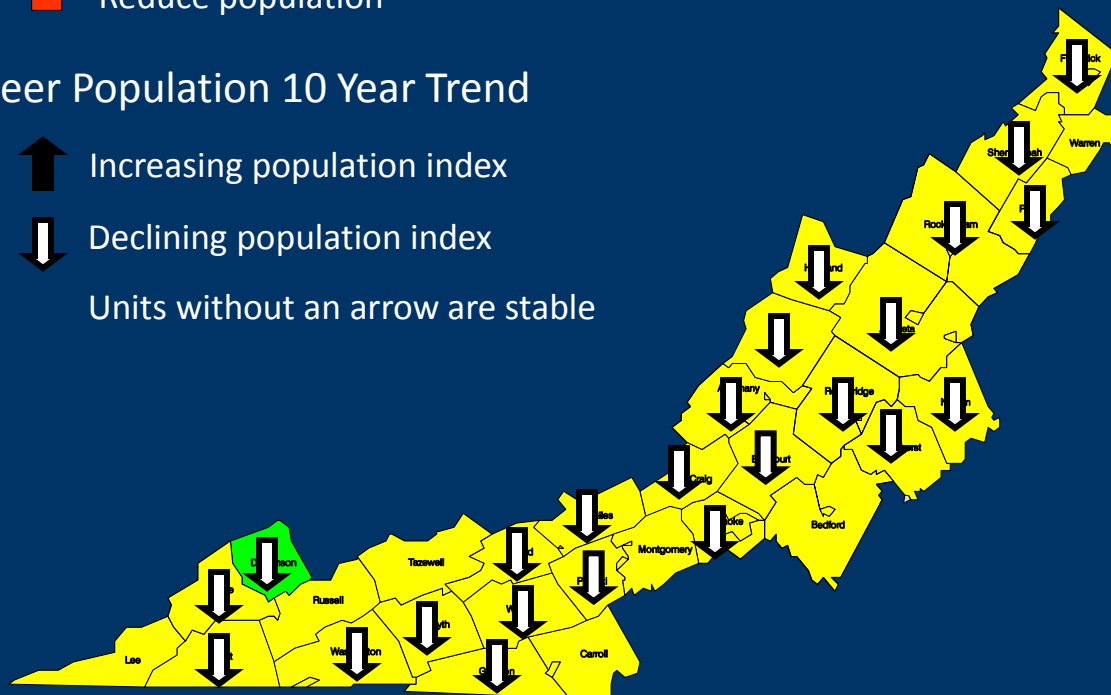
Deer Population Objective

2011

- Increase population
- Stabilize population
- Reduce population

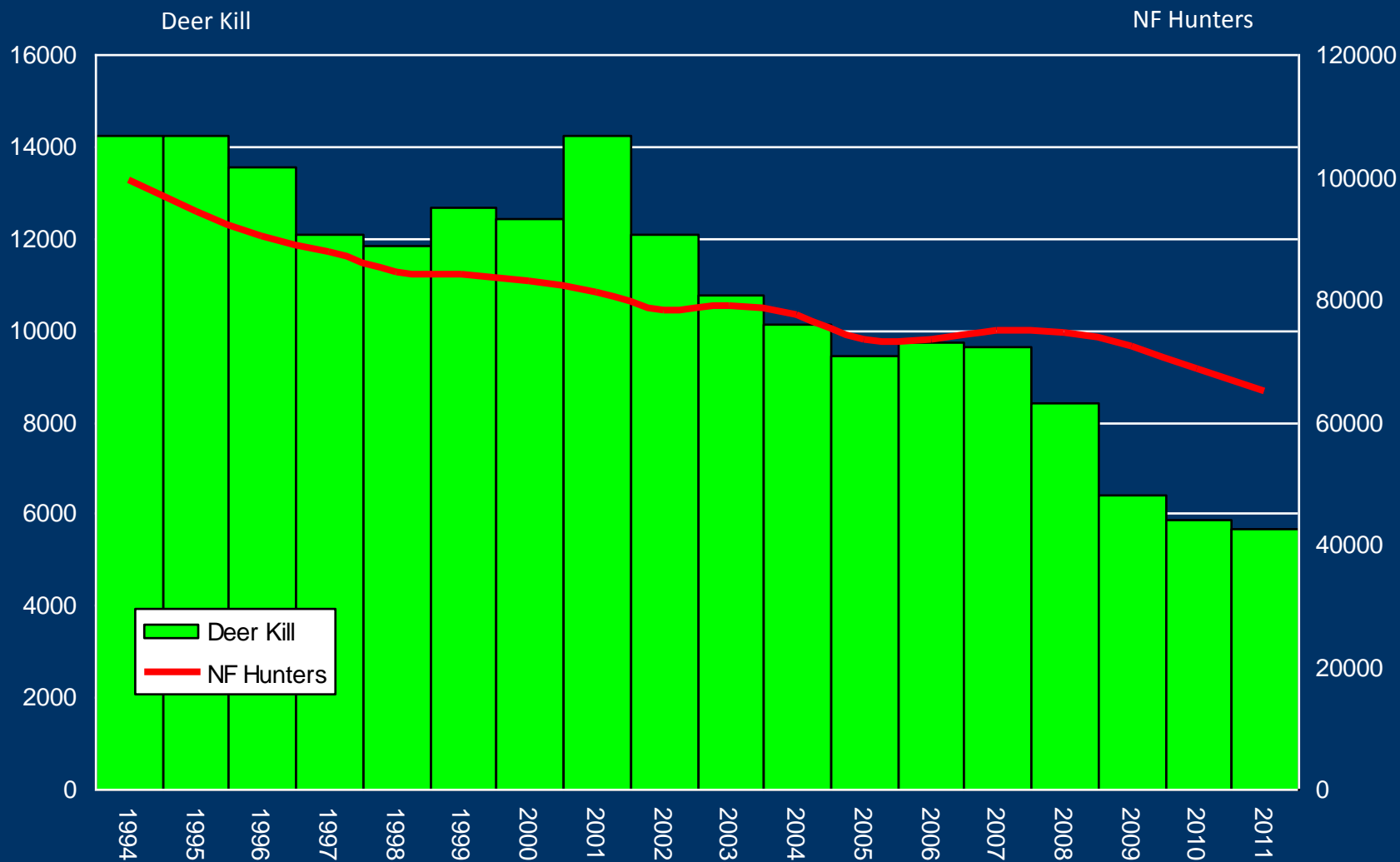
Deer Population 10 Year Trend

-  Increasing population index
 Declining population index
 Units without an arrow are stable



2011 public land deer population status by management unit.





West of the Blue Ridge Public Land Deer Kill 1994-present



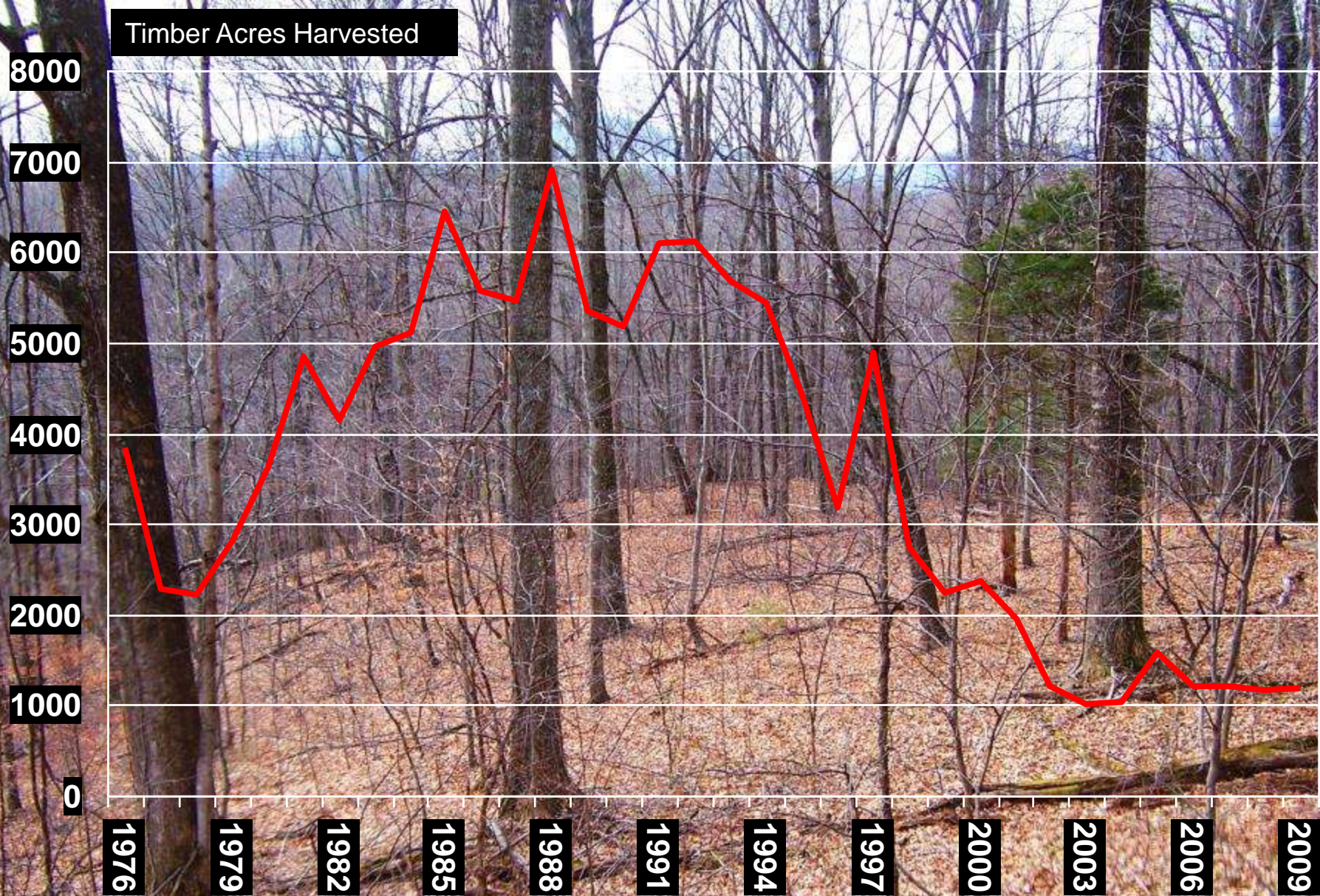


Figure 4. George Washington and Jefferson National Forests timber harvest in acres by year.

(1976-1987 acres are estimates)



Figure 5. Percent of national forest timber by age class. .

Figure 3. Google Earth Image Of Rockingham County Virginia.



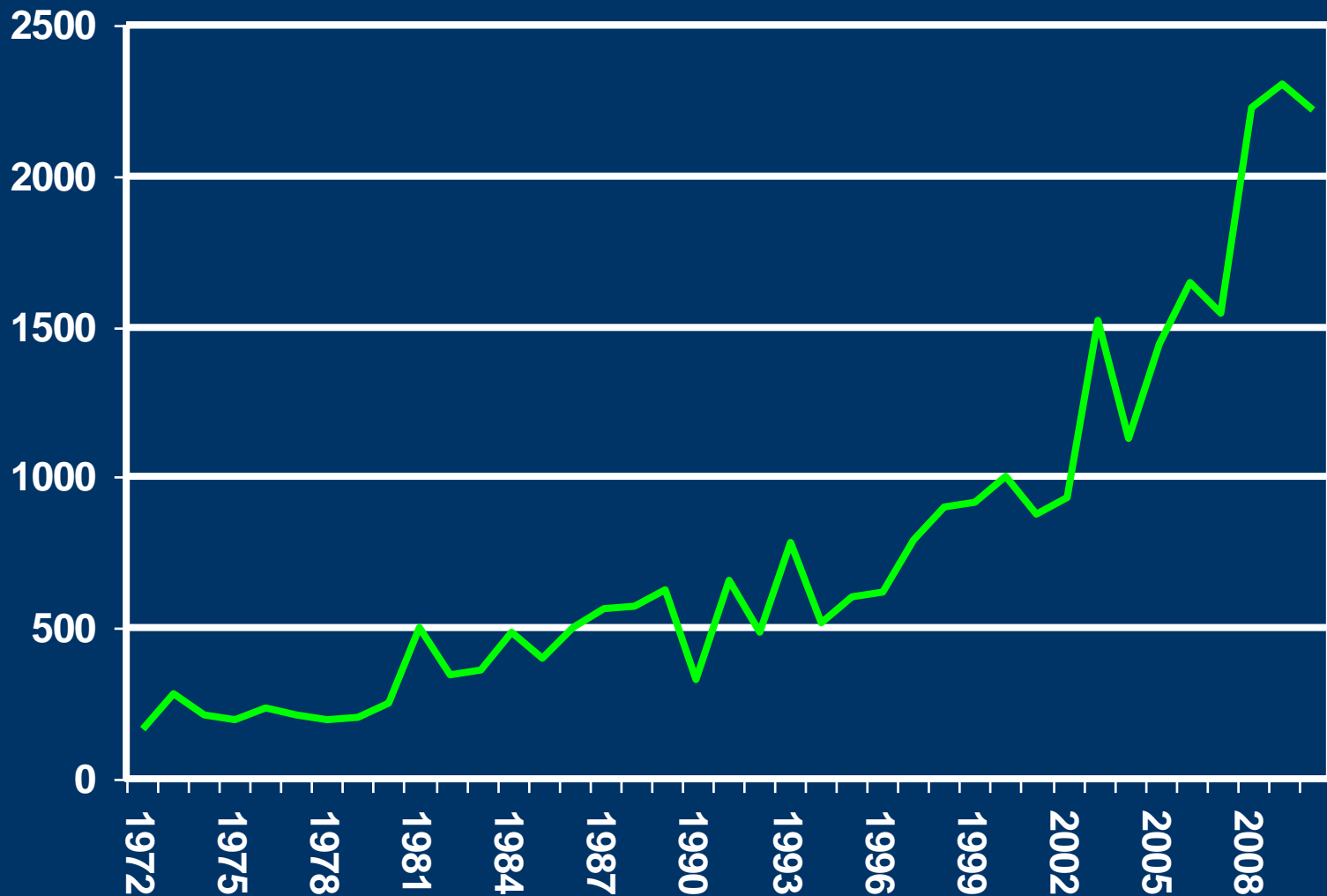


Figure 2. Virginia black bear kill.



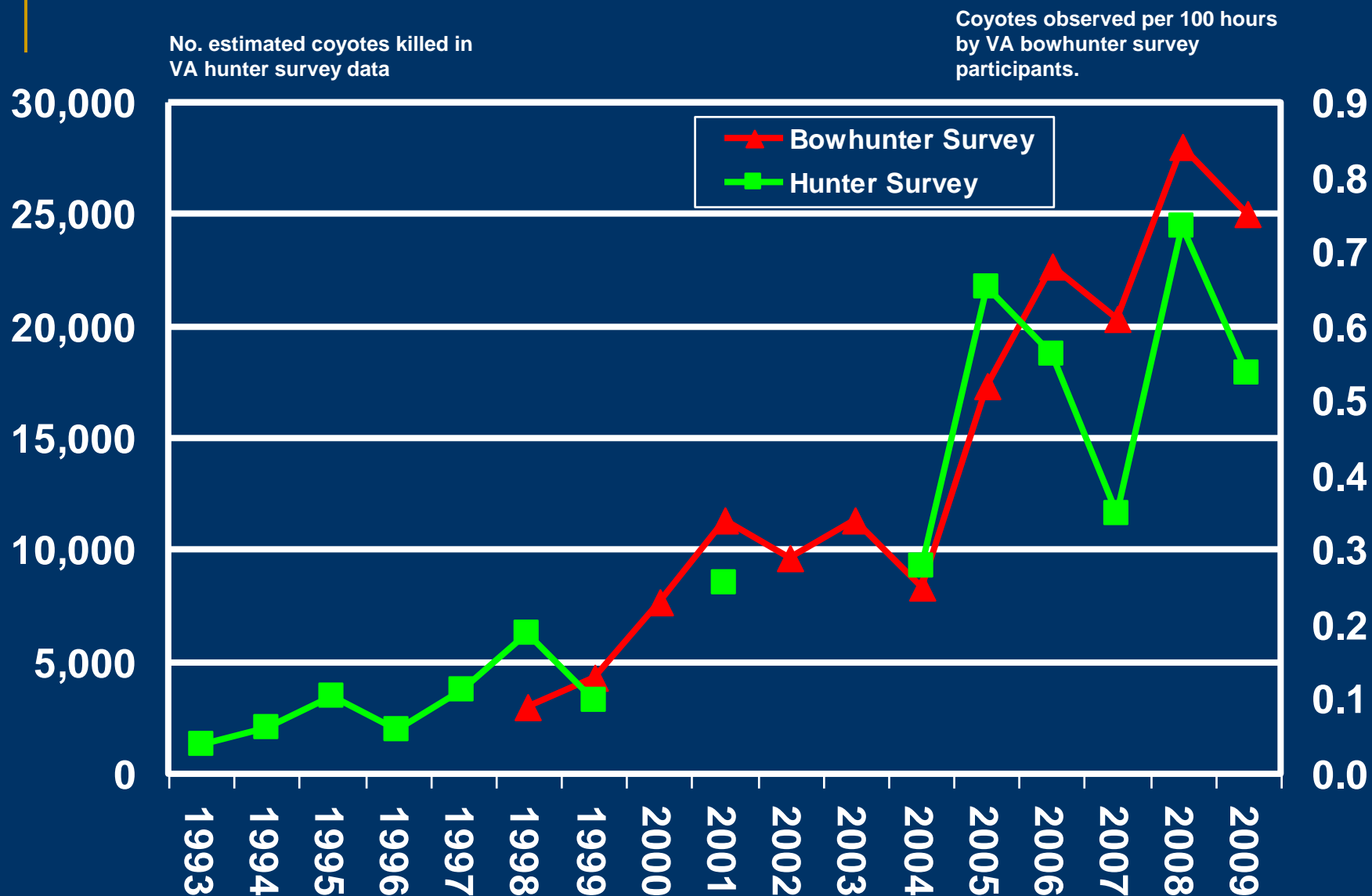
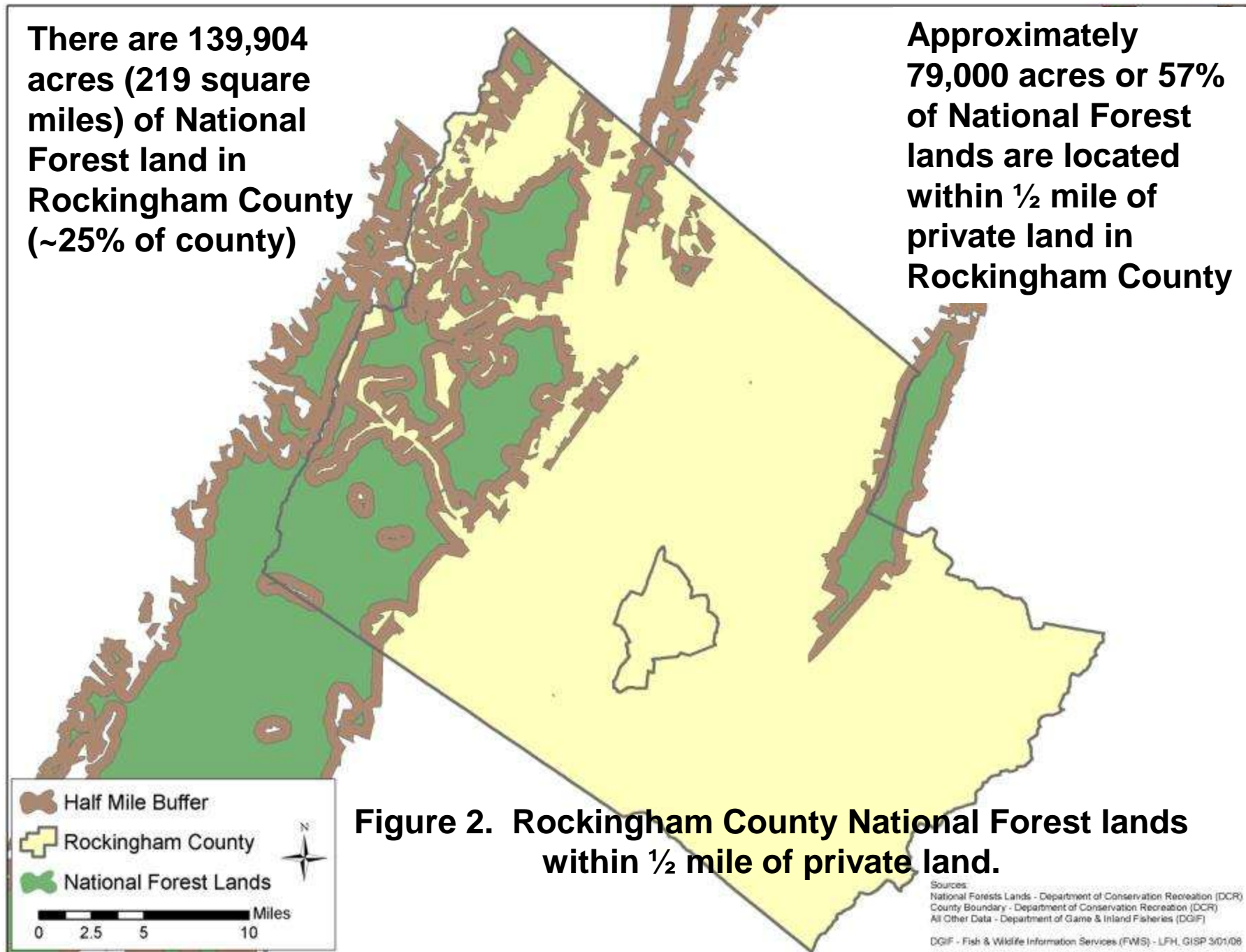


Figure 3. Number of estimated coyotes killed in Virginia from DGIF Virginia hunter surveys and number of coyotes observed per 100 hours from the Virginia Bowhunter survey.

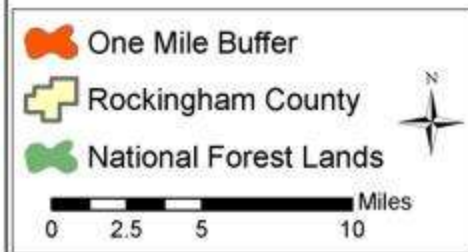


There are 139,904 acres (219 square miles) of National Forest land in Rockingham County (~25% of county)

Approximately 79,000 acres or 57% of National Forest lands are located within ½ mile of private land in Rockingham County



Approximately 112,000 acres
or 80% of National Forest
lands are located within 1
mile of private land in
Rockingham County



**Figure 3. Rockingham County National Forest lands
within 1 mile of private land.**

Sources:
National Forests Lands - Department of Conservation Recreation (DCR)
County Boundary - Department of Conservation Recreation (DCR)
All Other Data - Department of Game & Inland Fisheries (DGIF)
DGIF - Fish & Wildlife Information Services (FWIS) - LPH, GISP 3/01/08

Deer Management Plan

Wildlife Information Publication No. 07-1
June 2007

Virginia Deer Management Plan 2006-2015



Wildlife Division

Virginia Department of Game and Inland Fisheries

- The first deer management plan was developed between 1996 and 1998.
- SAC to represent the interests of all citizens.
- Second plan revision began in 2005 (SAC).
- <http://www.dgif.virginia.gov/wildlife/deer/management-plan/>