
Urban Deer Biology and Management Options

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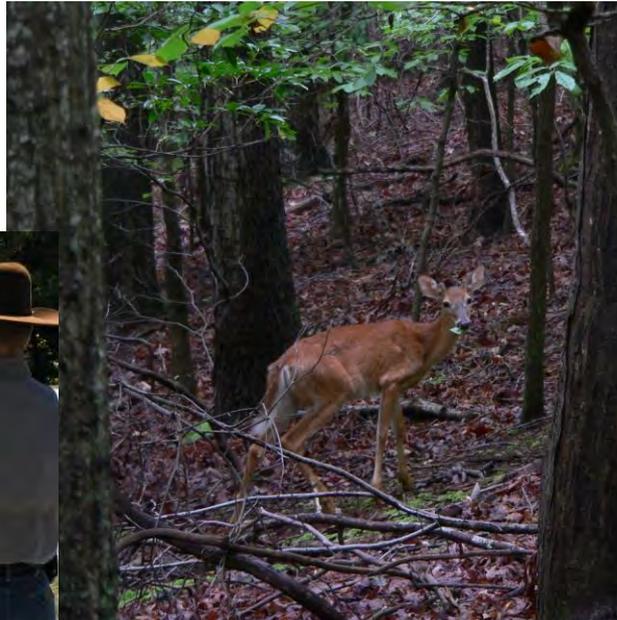
Deer Management Specialist

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Why Engage in Deer Management?



Characteristics of Urban Deer

■ Reproduction

□ Increased in Urban Areas

- Reported as high as 1.8 fawns/adult doe

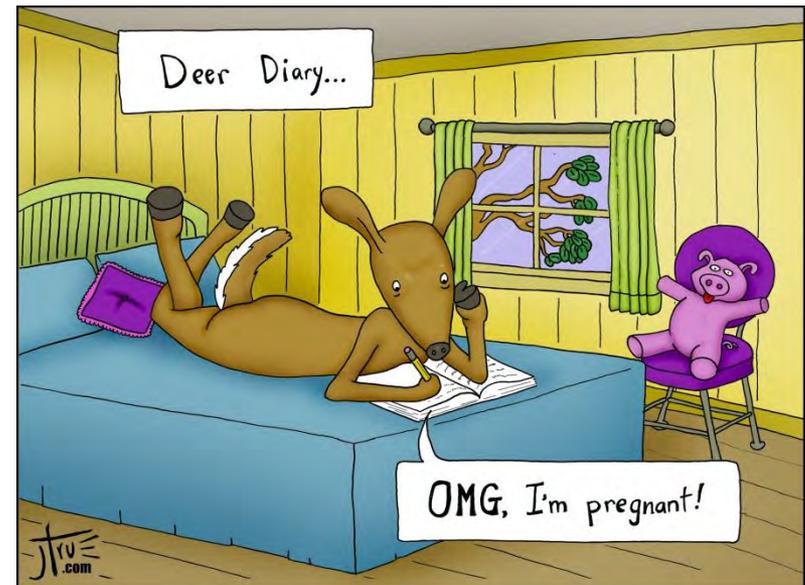
■ Survival

□ Higher rates

- Reported as high as 87%

■ Home Range Size

□ Typically smaller

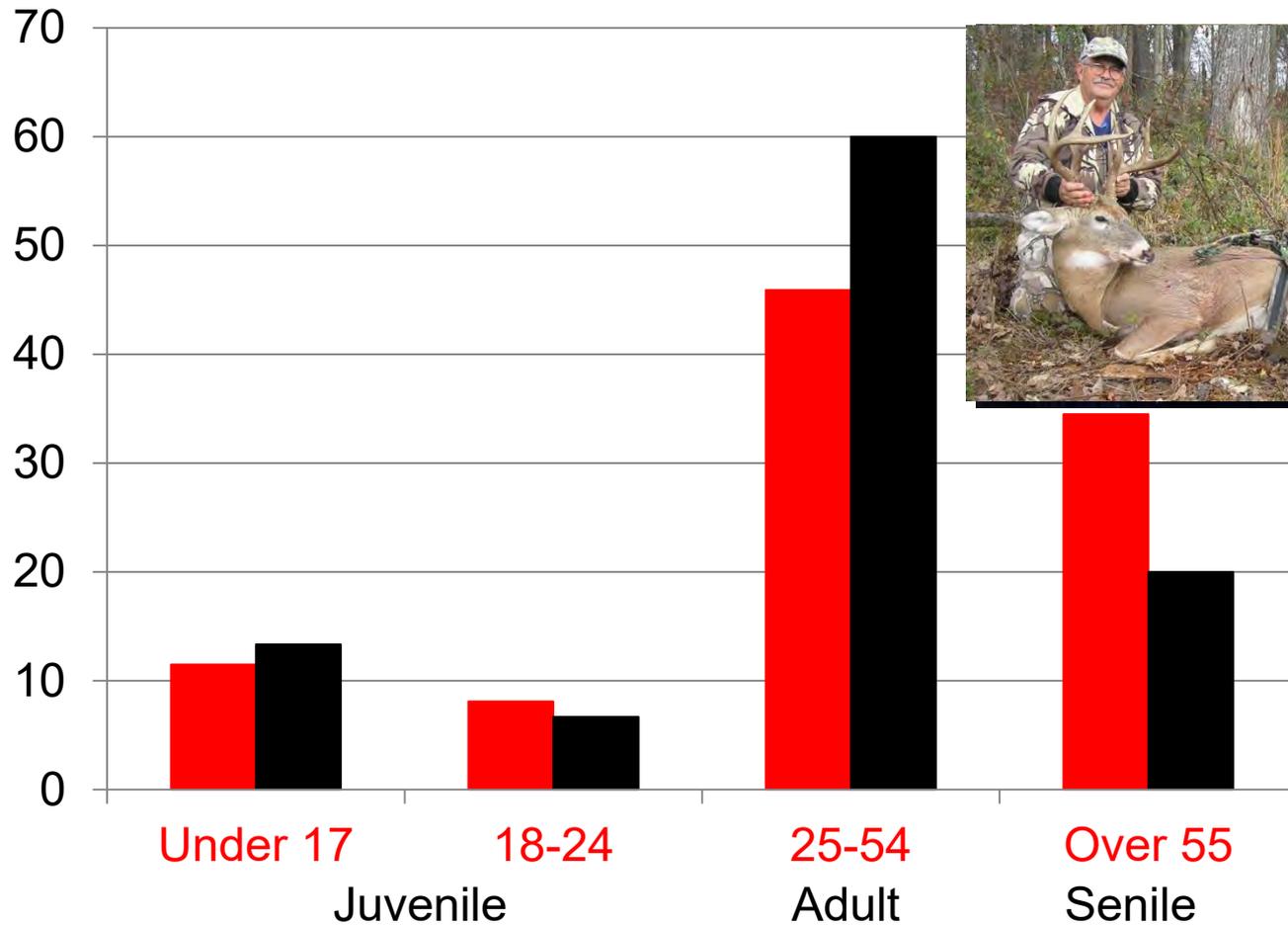


Historical Value of Hunting

- With many states, management has shifted from one of protection and distribution to mitigating impacts



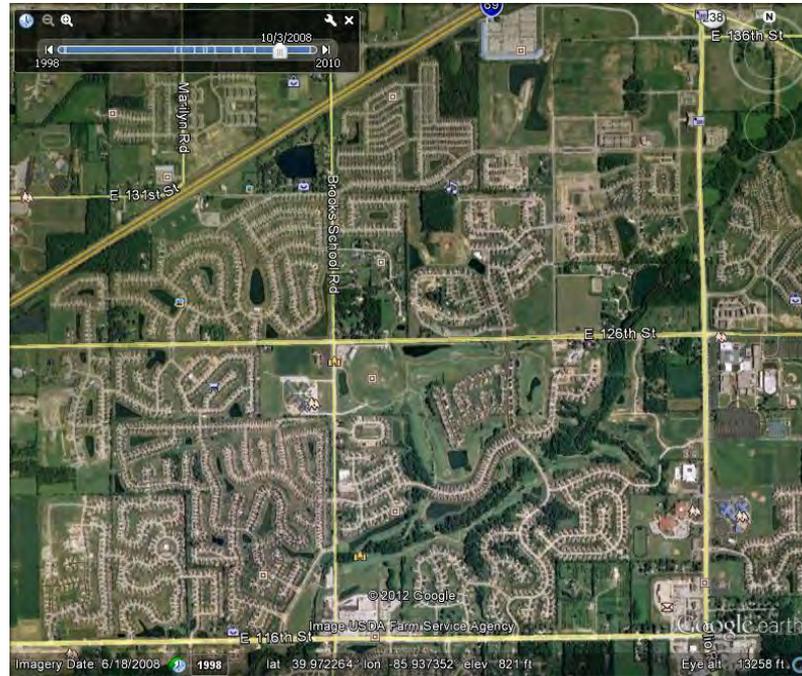
Age of Deer Hunters in MI



Frawley, 2018
Hu et al, 2000



Changes on the landscape



1999

2008



Carrying Capacity

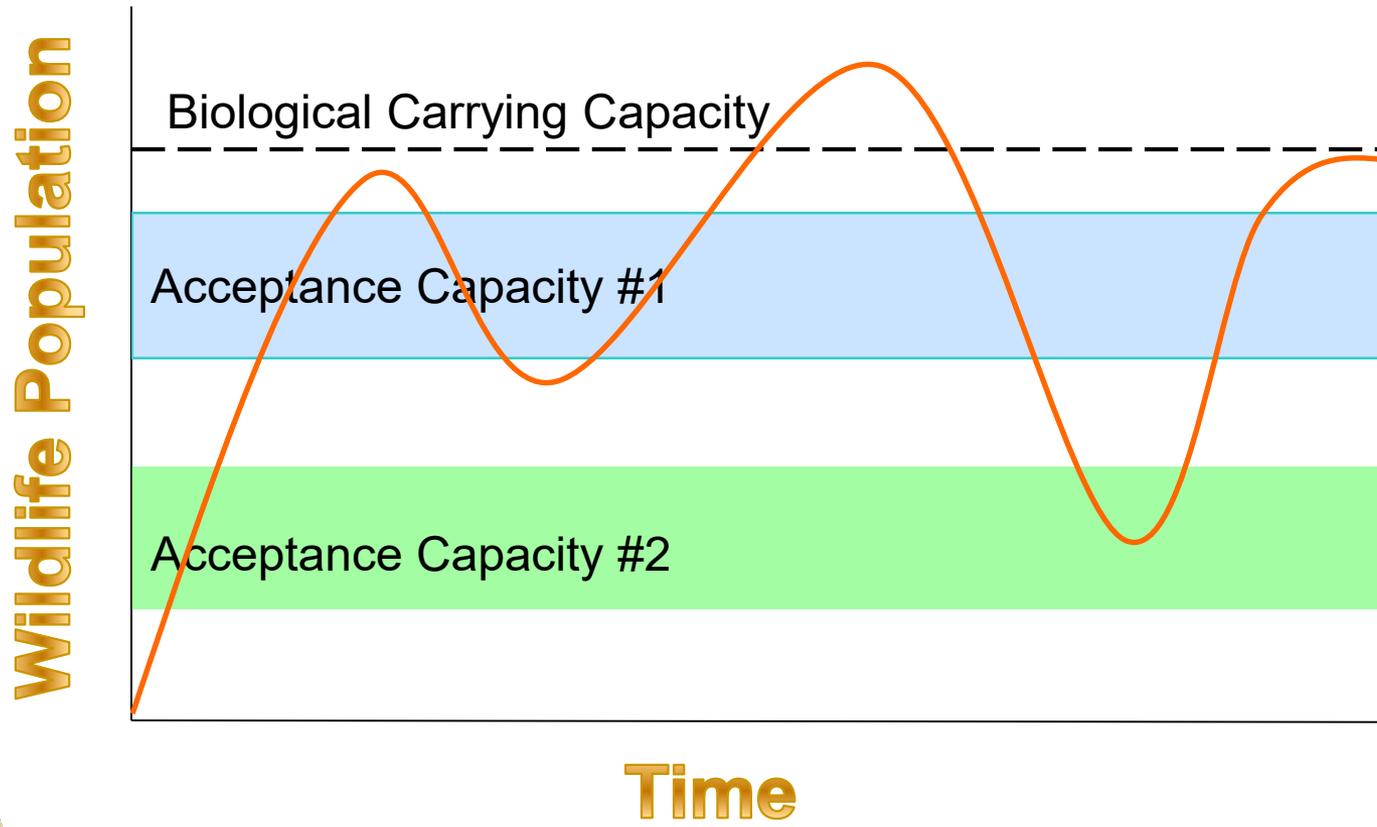
■ Biological



■ Social



Measures of Capacity for Wildlife Populations

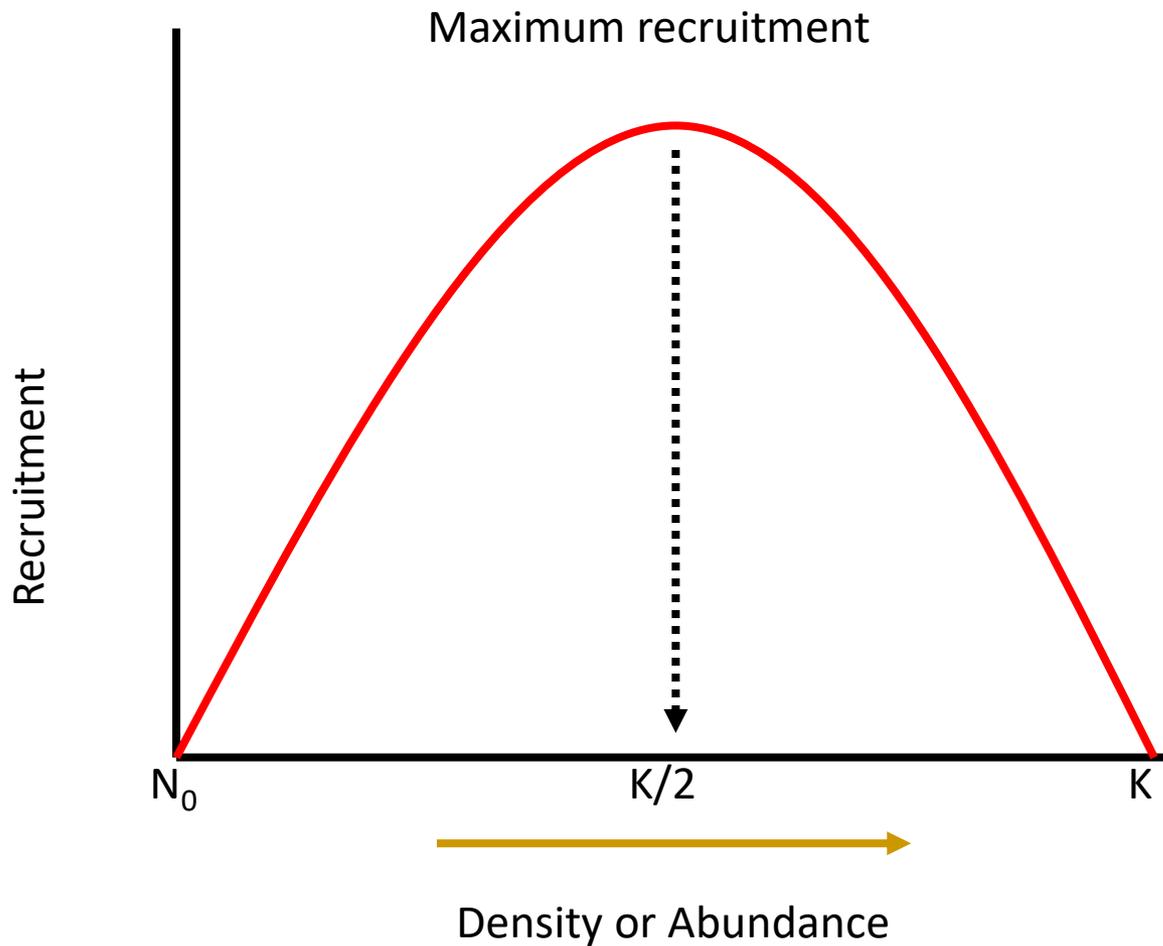


Wildlife Population

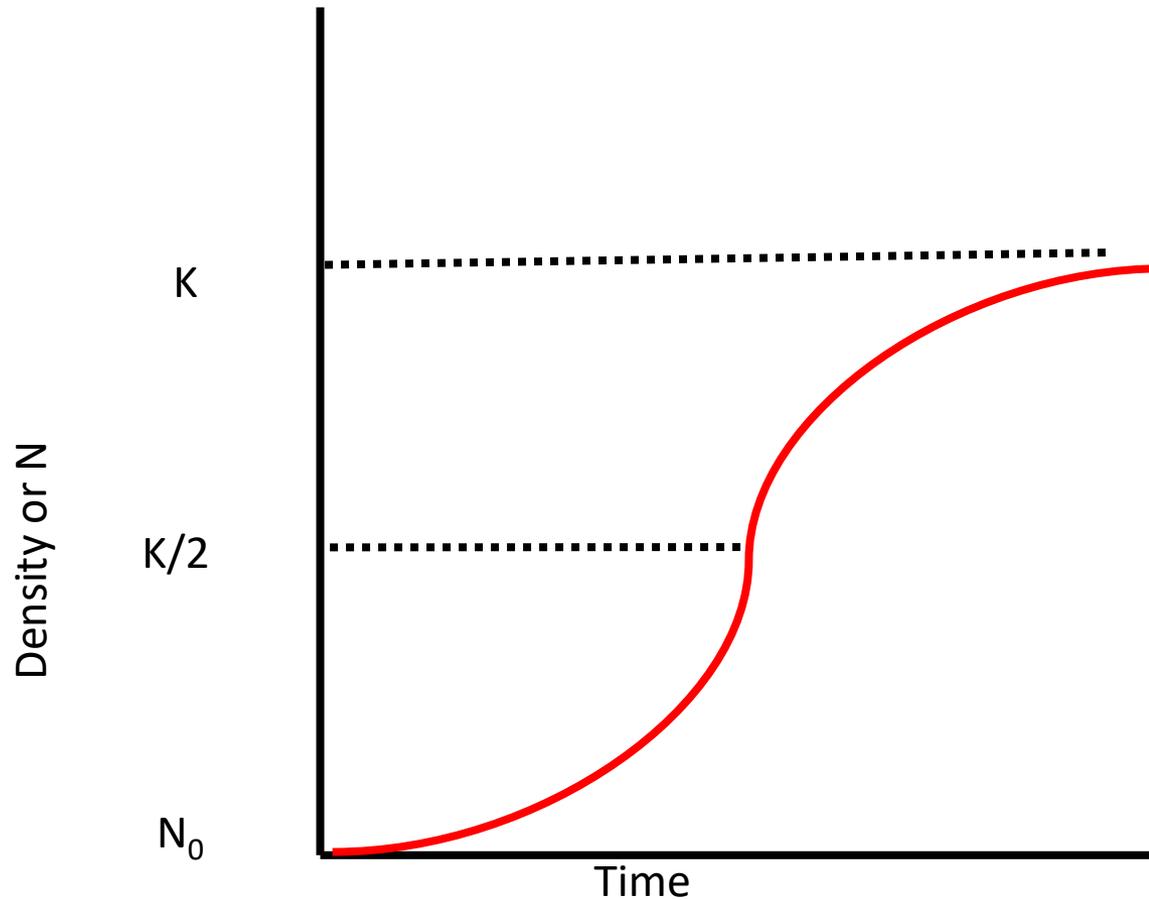
Time



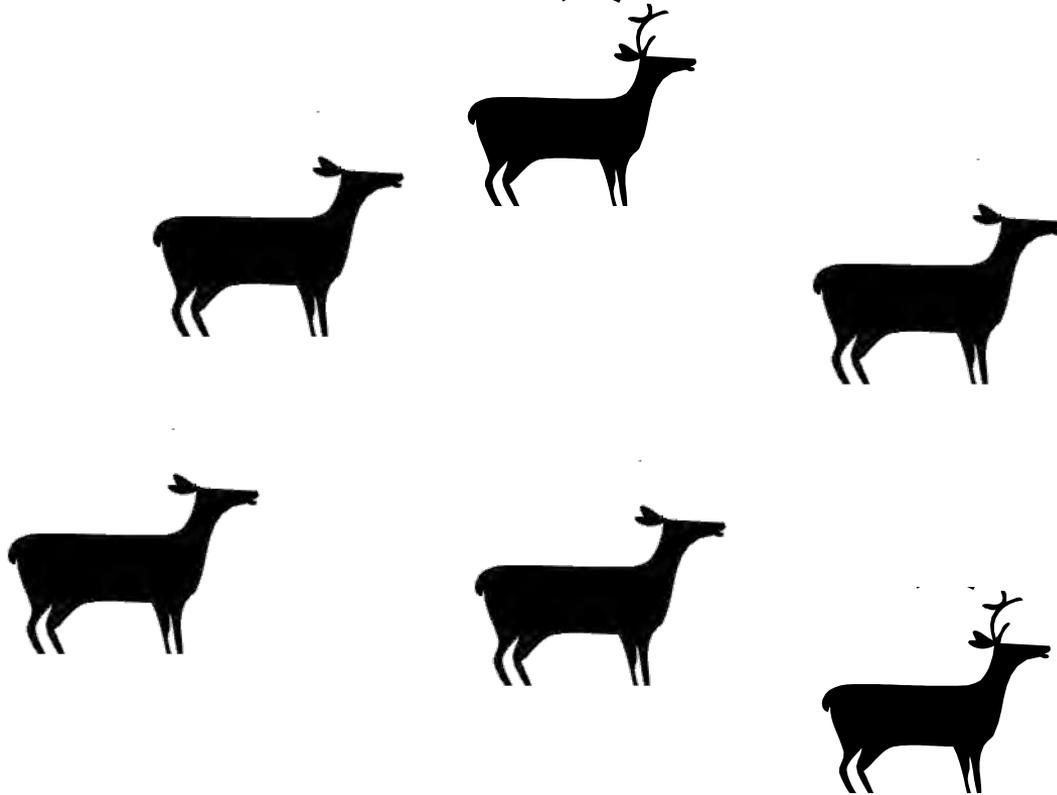
Density Dependence Recruitment



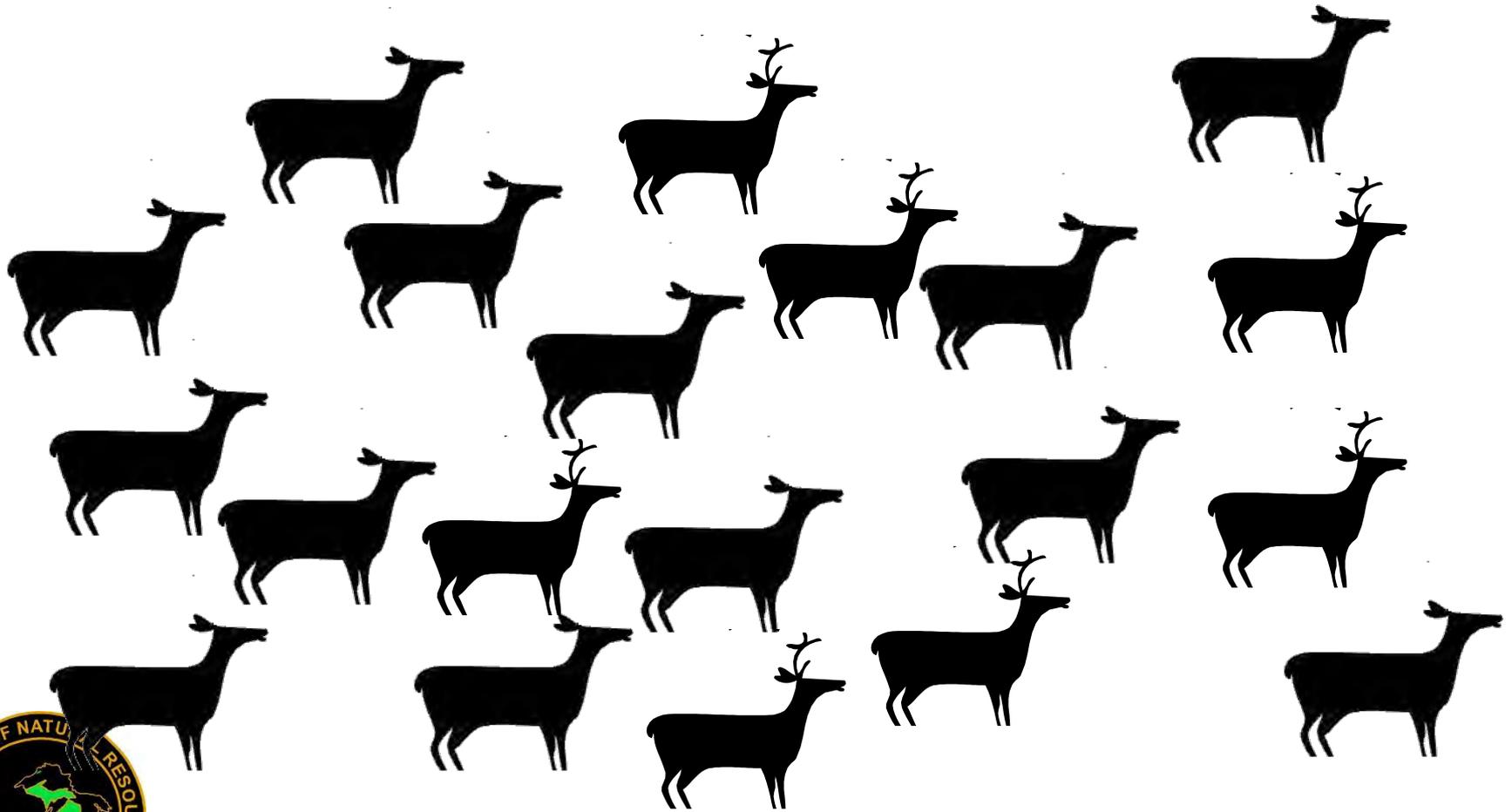
Logistic growth: change relative to density



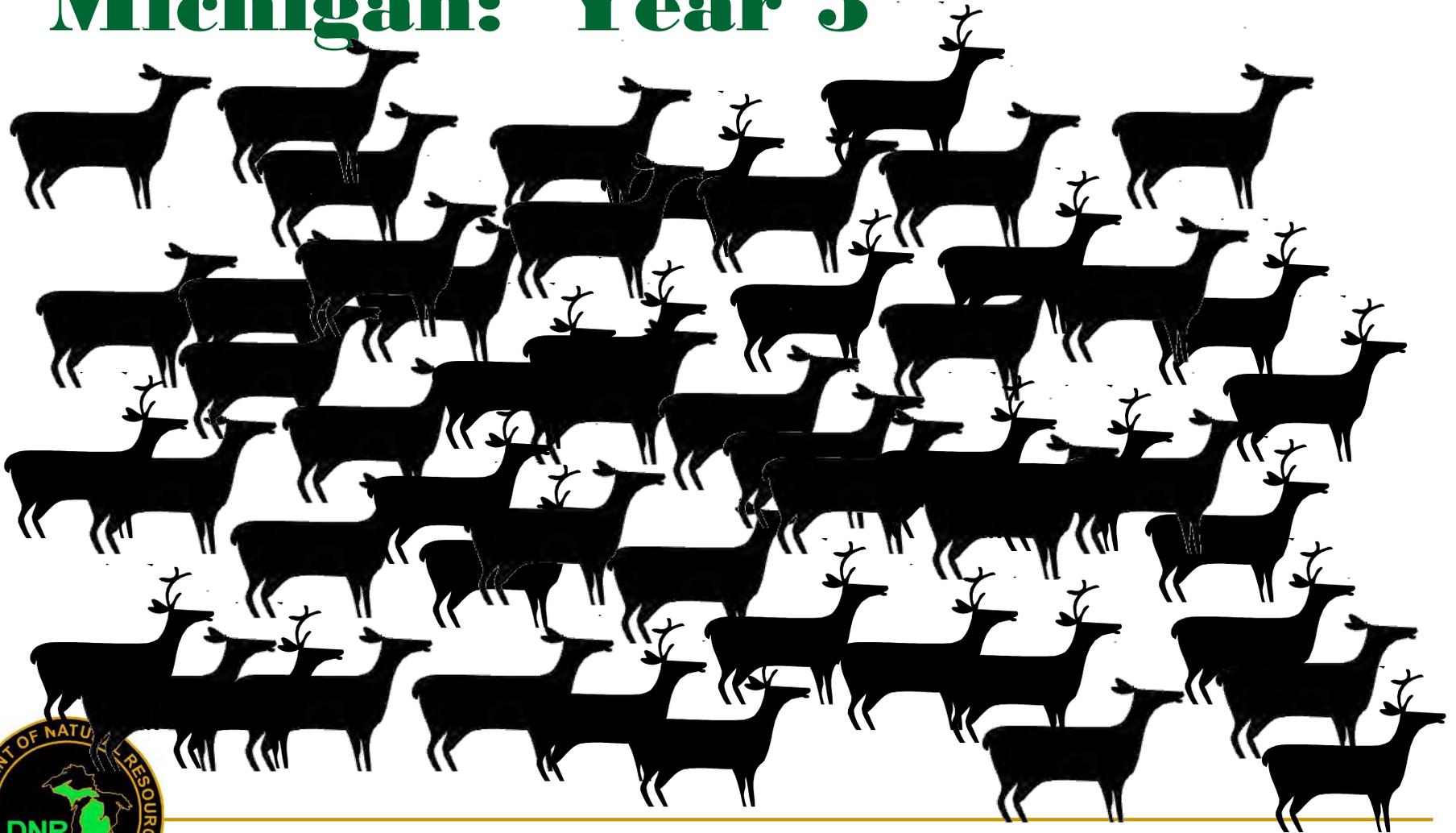
The George Reserve, Michigan: Year 1



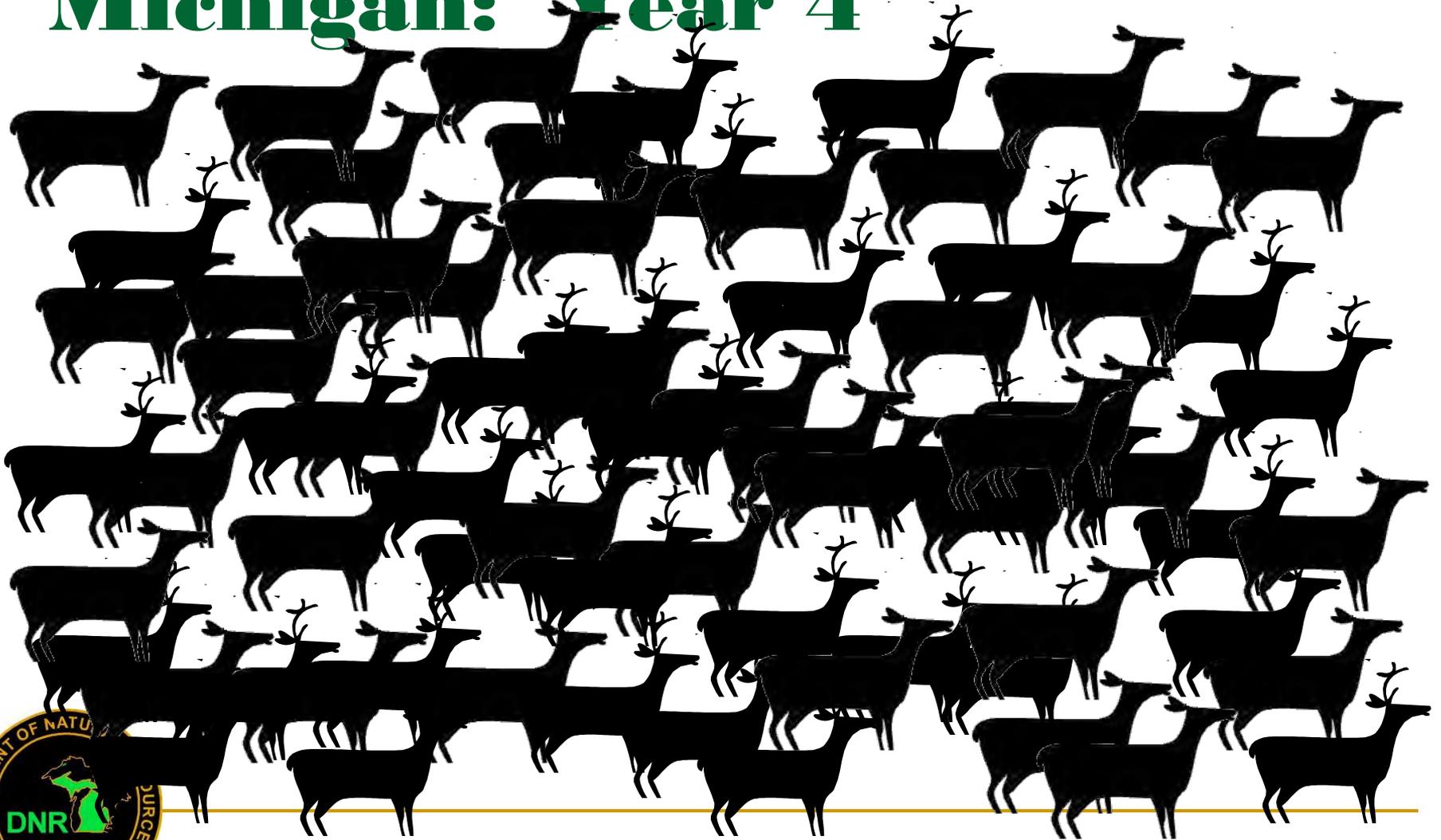
The George Reserve, Michigan: Year 2



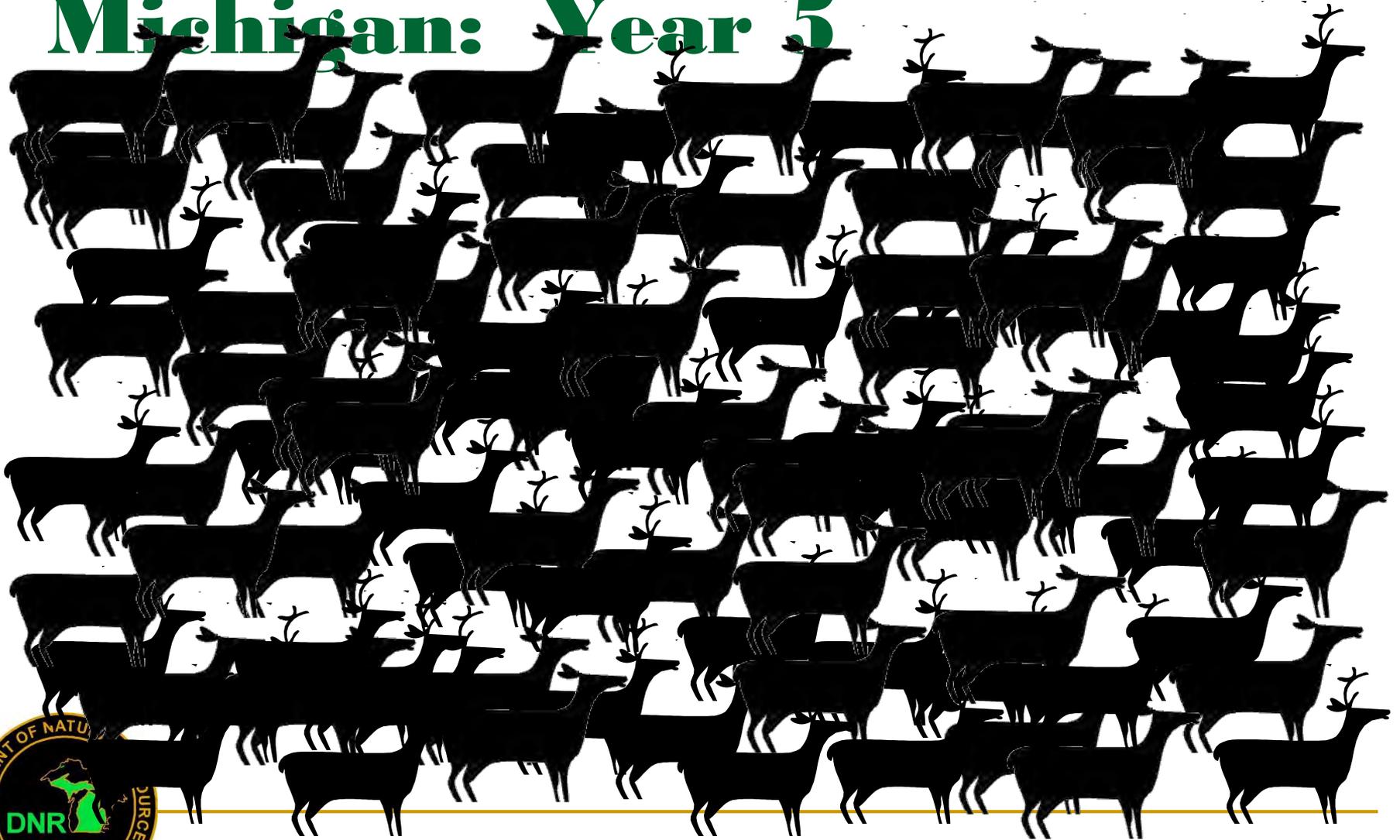
The George Reserve, Michigan: Year 3



The George Reserve, Michigan: Year 4



The George Reserve, Michigan: Year 5



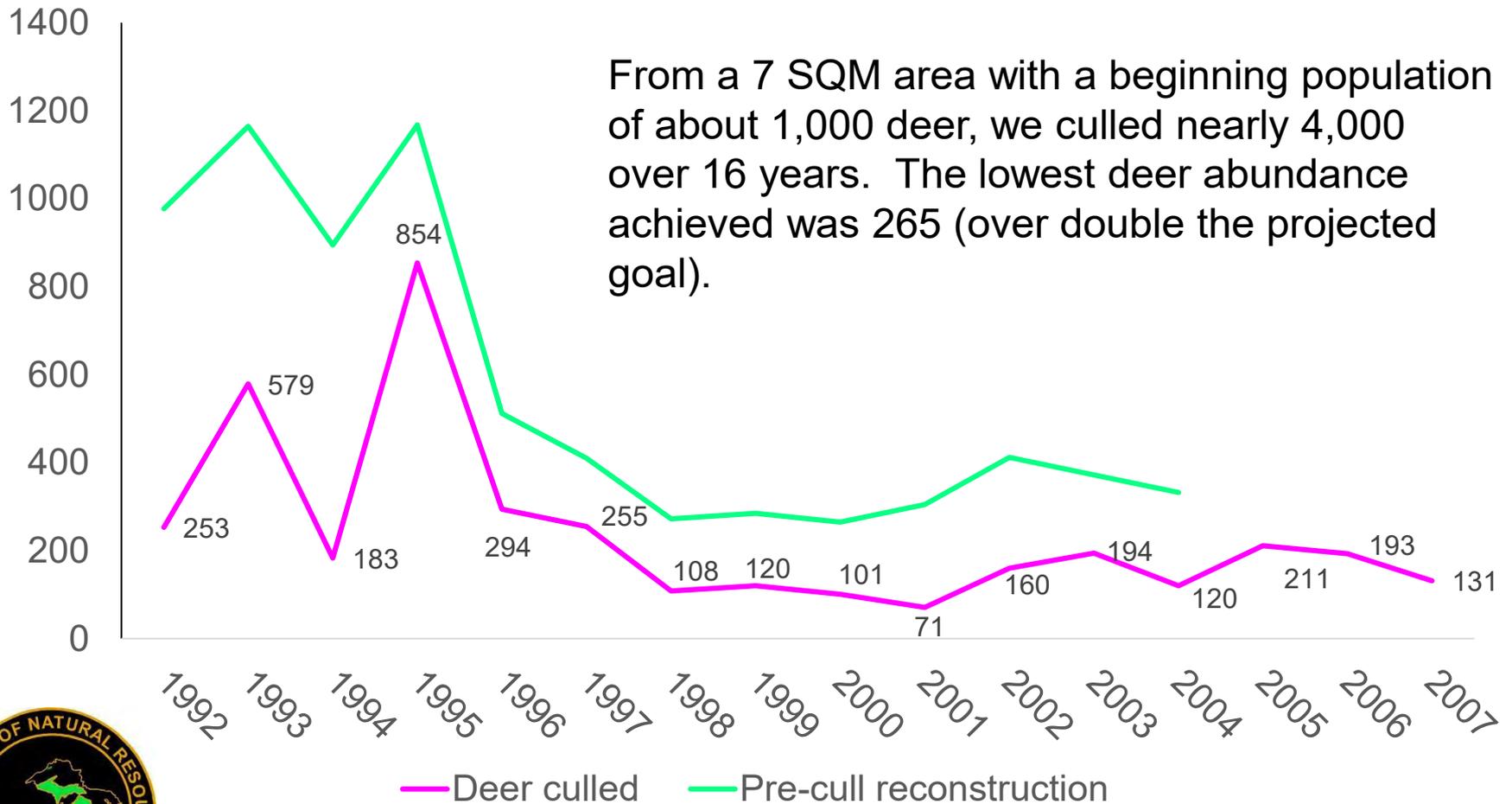
The George Reserve, Michigan: Year 6



The George Reserve, Michigan: Year 7



Southwest Chicago Deer Cull and Abundance History



Management Options

- No Action or Response

- Pros

- A compromise?
 - Inexpensive

- Cons

- No solution
 - Continued degradation of habitat and conflicts



Management Options

■ Hunting

□ Pros

- Inexpensive to communities
- Provide economic stimulus
- Largely favored by many people

□ Cons

- Some types of hunting (i.e. trophy) not appealing to many
- Local concerns regarding hunting in a community
- Access issues



Management Options

■ Sharpshooting

□ Pros

- Reduces deer population quickly
- Safe

□ Cons

- Often expensive
- Controversial



Management Options

■ Trap and Relocate/Remove

□ Pros

- No projectile
- Removes deer from difficult areas

□ Cons

- High stress to deer
- Expensive
- Relocation not typically allowed by state agencies



Management Options

■ Contraception

(GonaCon/ZonaStat D)

□ Pros

- Doesn't fire lethal projectile
- Prevents future fawns from being born

□ Cons

- Expensive
- Doesn't remove deer which may be the problem
- Difficult (impossible?) to achieve results in free-ranging deer herds



EPA restricted use pesticide not registered for use in Michigan.



Management Options

■ Sterilization

□ Pros

- Doesn't fire a lethal projectile
- Prevents fawns from being born permanently

□ Cons

- Expensive
- Doesn't remove deer which may be problem
- Difficult to achieve results



HB 5321 (2017) prevents sterilization of wildlife until 2022.



Management Options

■ Reintroduce Predators

□ Pros

- Opportunity to return historical species

□ Cons

- Socially unacceptable
- Expensive
- Complicated interactions requires study



Management Options

■ Fencing and Repellants

□ Pros

- Can exclude deer from problem areas
- Relatively inexpensive

□ Cons

- Requires maintenance
- No guarantees
- Does not solve community wide problem



Community based deer management

- ✓ Plan summary and background
- ✓ Problem definition
- ✓ Goals
- ✓ Measurable objectives
- ✓ Management actions recommended
- ✓ Management actions considered
- ✓ Plan for monitoring
- ✓ Plan for engagement
- ✓ Budget
- ✓ Timetable
- ✓ Responsibilities
- ✓ Supporting Documents
- ✓ References



One more thing....

- **DON'T FEED DEER!!!**
 - It's illegal in the lower peninsula



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Thank You

