

GOOSE MANAGEMENT: TOOLS, TECHNIQUES, AND TECHNOLOGIES

Vanessa Williams
Wild Goose Chase, Inc.



THE CANADA GOOSE (*BRANTA CANADENSIS*)

GENERAL OVERVIEW

- 8-12lbs
- Lifespan: 30 years
- Flight speed: 40-60mph
- Temperament
 - Intelligent
 - Suspicious
 - Spicy



DIET

- Grazer
 - Manicured and fertilized turf grass
- Fruit
 - Crabapple and ornamental fruit trees
- Nuts and seeds
 - Acorns
 - Dandelions
 - Birdfeeders
- Handfeeding



NESTING

- Pairs mate for life
 - Pair up at 2-3 years of age
- Natal site fidelity
 - Return to same nesting site year after year
 - Near where they were hatched
- Ground, trees, roofs, planters, muskrat mounds
- Typically within 150 feet of water
 - Sometimes up to a mile away

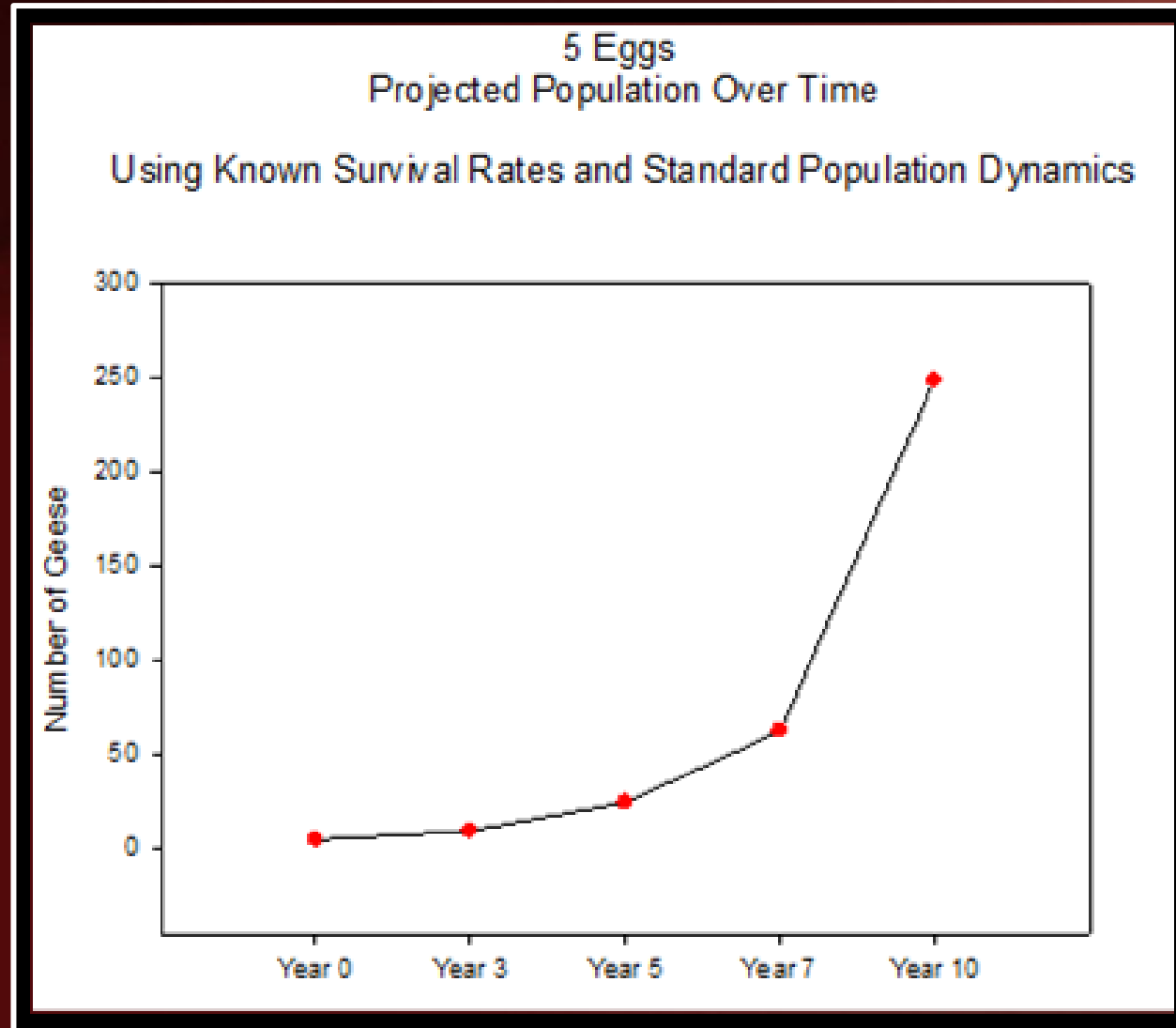


NESTING

- Lay one egg every 1.5 days
- 1-15 eggs (average 5)
- Incubation begins when clutch is finished so that all eggs hatch together
- Female incubates 28 days
- Most aggressive season



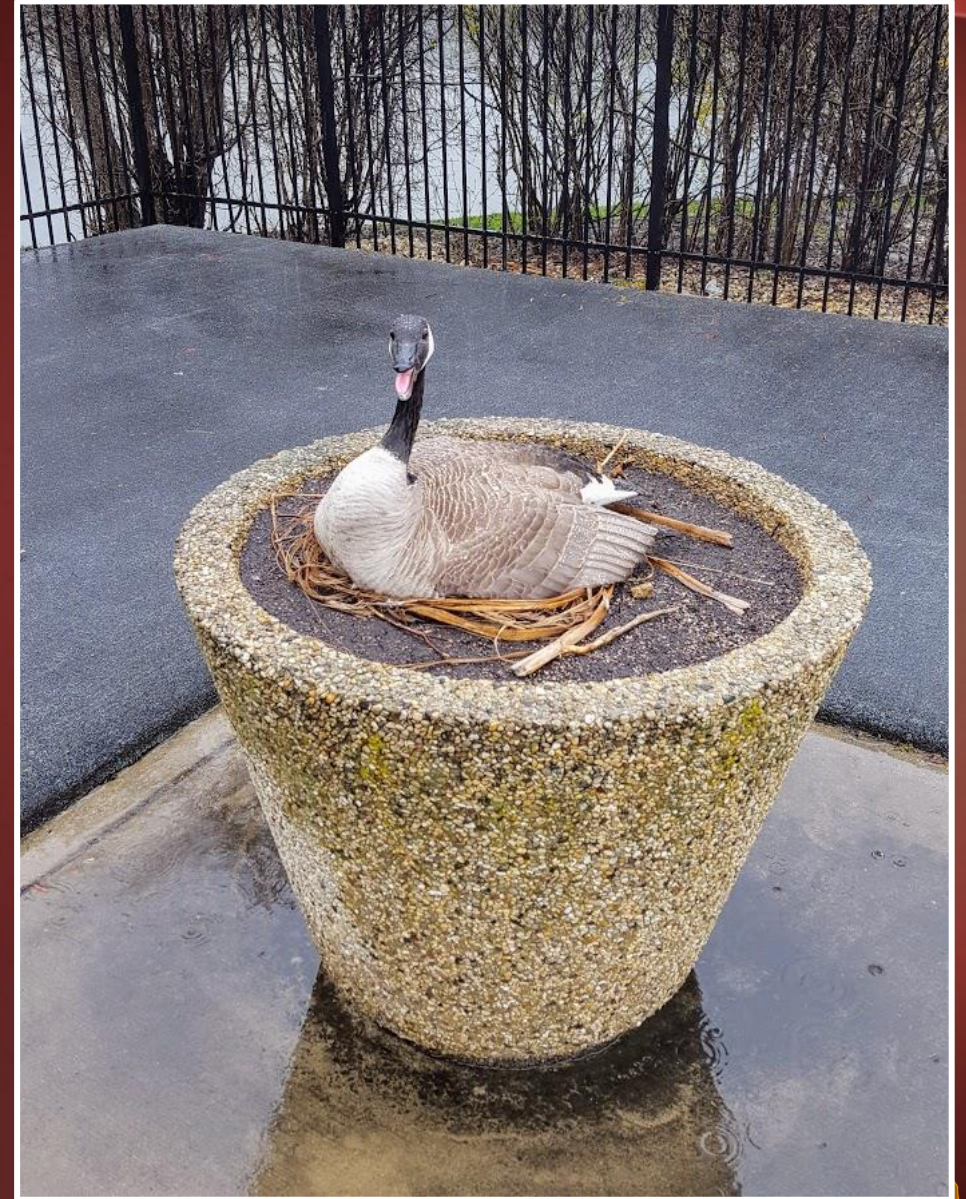
NESTING



NESTING: HERE AND NOW



NESTING



NESTING



NESTING



FAMILY SEASON

- All eggs hatch at the same time
- Goslings will leave nest within one day to follow parents
- Parents do not bring them food or water
- Parents will walk goslings sometimes over 3 miles to get to a good rearing site
- Parents will aggressively defend their young



FAMILY SEASON

- Goslings are adorable little fluffballs...
 - Until they aren't!
 - They're really just tiny poop factories
 - Ugly Dinosaur Ostrich Phase
-
- Within 4 months, goslings will be
 - Adult size
 - Adult plumage
 - Capable of flight



MOLT

- Geese molt all flight feathers during the summer months
- Coincides with raising goslings
- Geese cannot fly
 - Very vulnerable
- Stay around water
- Vehicle mortality
- Impacts management



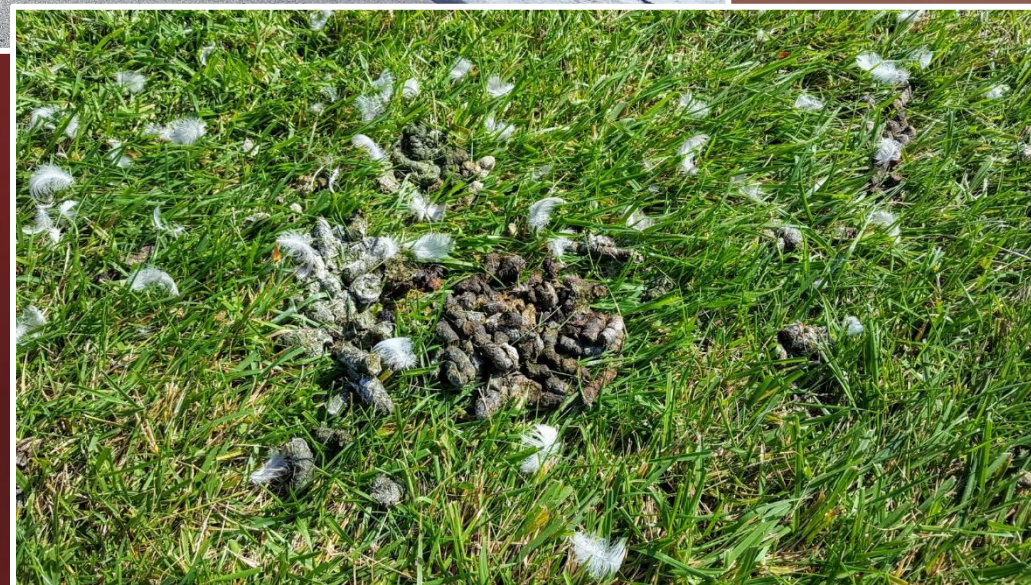
MIGRATION

- Geese from the northern US and Canada join resident geese
- Different subspecies than resident geese
- May only fly far enough south to reach open water and enough food
- Decoy Effect
- Can quickly cause large accumulations of droppings and damage to crops and lawns
- How diseases like Avian flu are spread and transmitted between populations



DAMAGE

- Airport
 - Bird strikes
 - Droppings on runways
- Agriculture
 - Consumption of crops
 - Avian Flu risk for Poultry
- Commercial, Industrial, Residential
 - Droppings
 - Turf damage
 - Algae blooms
 - Aggression
 - Human Health and Safety



DAMAGE

- Droppings
 - 2lbs per goose per day
 - Every 8 minutes
 - Unsightly
 - Carry diseases such as salmonella and avian flu
 - Acidic – change the pH of the soil making it difficult for grass to grow
 - Carry a lot of nutrients which when washed into ponds creates algae blooms
 - Slip and fall risk
 - Clog roof drains



DAMAGE



DAMAGE



WHY HAVE THEY BECOME A NUISANCE?

- Humans create perfect conditions
 - Food
 - Manicured lawns
 - Ornamental fruit and nut trees
 - Handfeeding
 - Habitat
 - Retention and ornamental ponds
 - Safety
 - Predator exclusion
 - Water with visibility
 - Nesting areas
- Adaptable and intelligent



GEESE ARE A PROTECTED SPECIES! WHY?!

- Migratory Bird Treaty Act of 1918
 - Protects all migratory birds native to North America
 - International treaty because birds are international
- Nearly went extinct
- Small population found and reintroduced
- Adapted easily to urban life
- Must be managed within confines of their protections



GOOSE MANAGEMENT

- Respect for Wildlife
- Humane
- Scientifically Sound
- Best Practices
- Integrated Pest Management
- Management is key word
 - There is no quick 100% fix!
- Goal is to provide balance to shared habitat



Effective, Efficient, Legal, Safe!

TOOLS, TECHNIQUES, AND TECHNOLOGIES: MANAGEMENT AND CONTROL

- Population Management
 - Egg Depredation
 - Round Up
- Harassment
 - Canines
 - Lasers
 - Boats
- Chemical Deterrents
 - Flight Control Plus
- Structural Deterrents
 - Autonomic Laser
 - Decoys
 - Grid Systems
- Community Involvement
 - Education
 - Ordinances



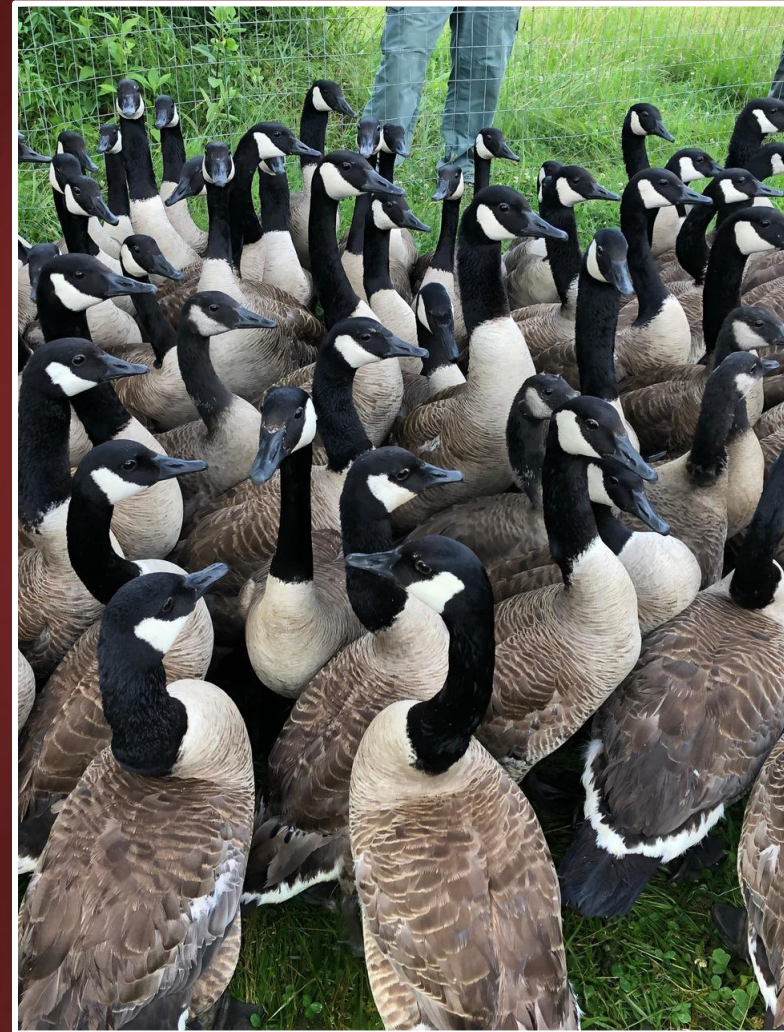
POPULATION MANAGEMENT

- Hunting
- Round Up
- Egg depredation



ROUND UP

- Occur during summer molt period
- Geese are corralled and euthanized
- Needs special permit from USFW
- Performed by USDA in IL
- Very effective short term
- NOT effective long term unless done yearly
- Not considered humane
- High negative PR and potential for backlash, including from out of state



EGG DEPREDATION

- Removal or rendering inviable of eggs
 - Oiling
- Humane within 2 weeks of development
- Prevents/slows population growth
- Federal permit required
 - Post season reporting required



HARASSMENT

Tools

- Canines
- Boats
- Handheld Lasers



CANINES

- Perceived natural predator
- Humane and natural
- Take advantage of goose behavior
- Condition the birds that the property is not a safe place
- Requires intensive training and the right temperament
- Daily patrols
- The most effective long term method



CANINES: THE BORDER COLLIE



CANINES: THE BORDER COLLIE



WHY BORDER COLLIES?

- Herding
 - “The Eye”
 - Bite inhibition
 - Quiet
 - Focus
- Intelligence
 - Ease of training
 - Work closely with their human partner
 - Problem solving
- Persistence
 - Work all day without tiring or getting bored



HANDHELD LASER

- Green light
 - Geese see whole beam
 - Green works best
- Works on most bird species
- Most effective in low light or inclement weather conditions
 - When dog is less effective or unsafe
 - Some higher powered lasers work in brighter lighting
- Not very effective against nesting geese
- Requires safety training



BOATS

- RC Boats
 - Make the water unsafe
 - Faster than border collie swimming
 - Safer than dog swimming
 - Toxic algae
 - Road runoff
 - Chemicals
- Kayak
 - Put human and canine pressure in the water
 - Moving families



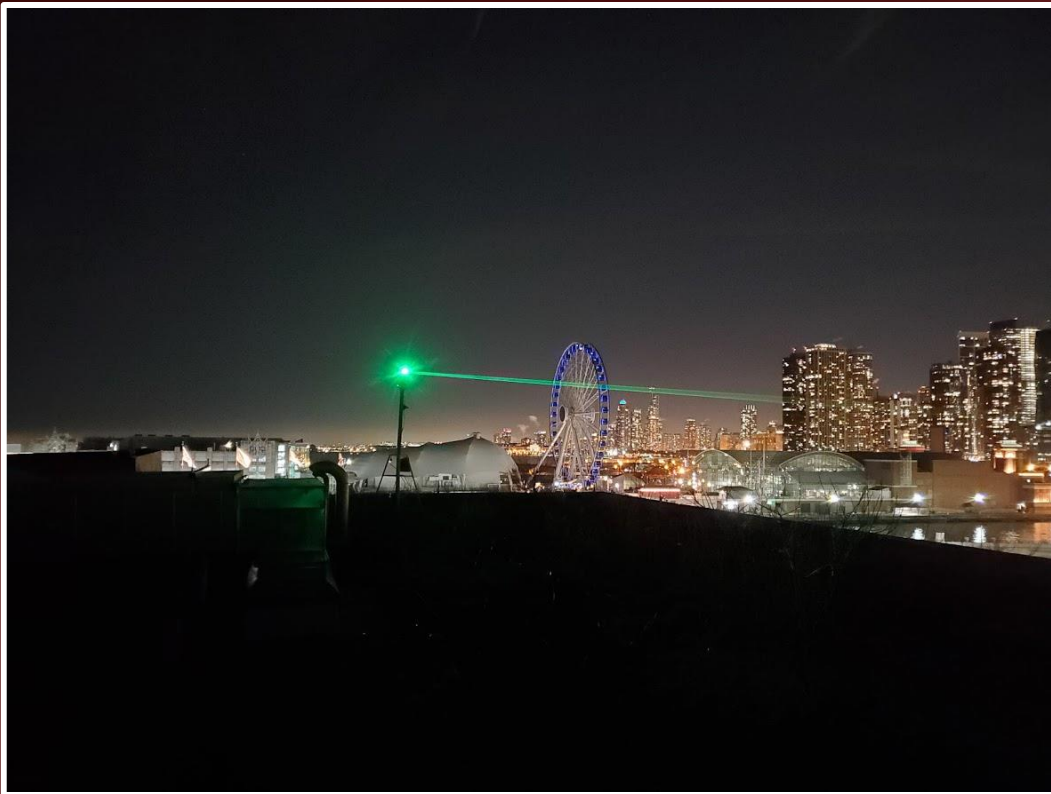
CHEMICAL DETERRENTS: FLIGHT CONTROL PLUS

- Applied on dry turf
 - Vehicle or backpack sprayer
- Gives geese a mild upset stomach when eaten
 - Does no long term damage
 - Will not kill wildlife
- Reflects UV light
 - Geese can see this, makes the grass look different
- Geese learn that the “weird” grass is not safe to eat and avoid it
- Does not wash off in rain, but will be mowed off



STRUCTURAL DETERRENENTS

- Autonomic Laser
- Predator Decoys
- Grid systems



AUTONOMIC LASER

- Same effect as handheld laser
- Programmed to run 24/7
- Random pattern so birds don't get acclimated
- Used for:
 - Poultry farms
 - Fish rearing ponds and Aquaculture
 - Critical areas with little human traffic
 - Rooftops



AUTONOMOUS LASER



PREDATOR DECOYS

- Effective only for a week or two
 - Birds get acclimated and realize it's not real
 - Moving decoy multiple times a day increases effectiveness
- Works much better in conjunction with canine harassment
- Ones that are more realistic or move are effective for longer



GRID SYSTEMS

- Provide visual and physical barrier for a set location
 - Usually a roof or pond
- Spacing must be correct
- System must be consistently maintained
 - Damage by weather, wind, collisions, etc
- Risk for entanglement



COMMUNITY

- Your neighbor's problem is your problem
- Prevention of handfeeding
 - Signage
 - Enforcement
 - Ordinances
 - Makes management nearly impossible
 - Bad for birds
 - Bad for the environment
 - Bad for people
- Education
 - Community workshops and seminars



AN INTEGRATED APPROACH: BRINGING IT ALL TOGETHER

- Management is most effective when multiple tools, techniques, and technologies are integrated together
- Have a dedicated plan
- Work at every angle
- Customize to specific property and client needs
- Exploit the species' behavior and biology



RESPONSIBILITIES

- Manage for Safety
 - Safety of birds
 - Safety of other wildlife
 - Safety of dogs
 - Safety of people
- Manage Legally
 - Follow the laws and protections



QUESTIONS?

