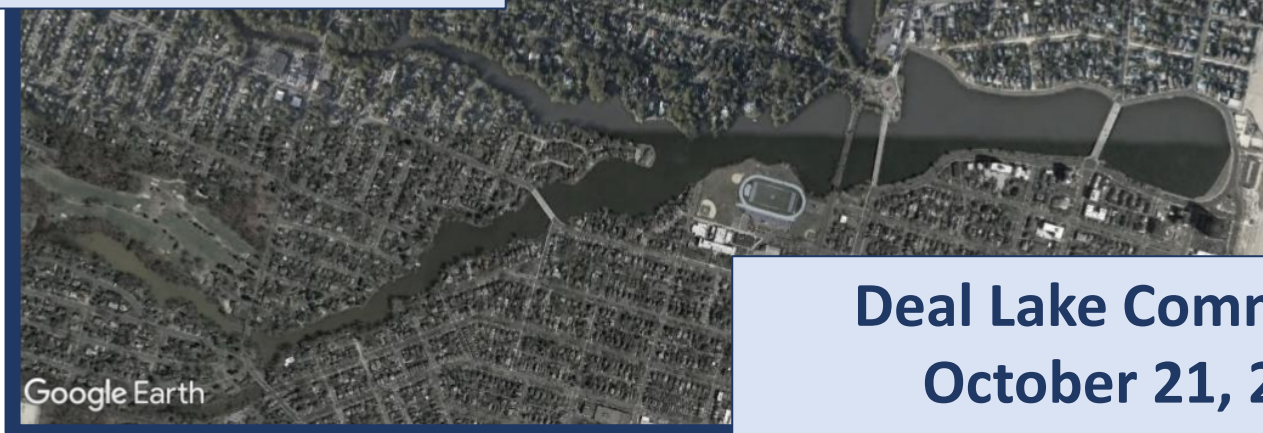


New Jersey's Resident Canada Geese and Management Techniques



Deal Lake Commission
October 21, 2021
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United States Department of Agriculture (USDA) Animal & Plant Health Inspection Service (APHIS) Wildlife Services (WS)

Provide federal leadership and expertise to
resolve wildlife conflicts to allow people and
wildlife to coexist

Focus of Wildlife Services' Program in New Jersey

- Wildlife Disease
- Airport Wildlife Management
- Wildlife Damage Management
 - Technical assistance
 - Direct management operations



Presentation Overview

- New Jersey's Canada goose population
- Harassment and deterrents techniques
- Population management (egg addling)



Canada Goose Biology



- Breed at 3-4 years old
- Live for 20-25 years
- Long-term pair bond
- Strong fidelity to nesting territory
- Average 5 eggs per nest but can range from 3-10
- Female incubates eggs for 28 days

Migratory vs Resident Canada Geese

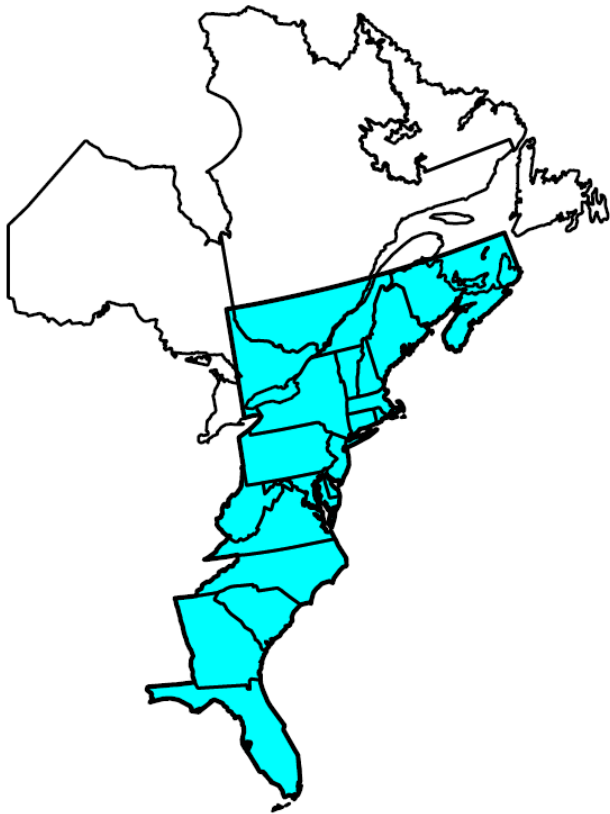
Two behaviorally different populations

NESTING:

- Geese that nest in East Coast states are considered resident geese
- Geese that nest north of blue area on map are considered migratory geese

MIGRATION:

- NJ's resident geese are found in NJ year round
- Migratory geese are in NJ only during the winter (October-March)



A large flock of Canada geese is gathered in a grassy field with scattered brown leaves. In the background, a calm body of water is visible under a soft, overcast sky. The geese are in various poses, some standing and others grazing.

Legal Protection: Common Questions

**Why are Canada geese protected?
There are so many of them.**

**Are resident geese that don't migrate
offered the same protection?**

All Canada geese (resident and migratory) are protected under the Migratory Bird Treaty Act

A permit or registration is required to handle or take any Canada goose nest, egg or bird

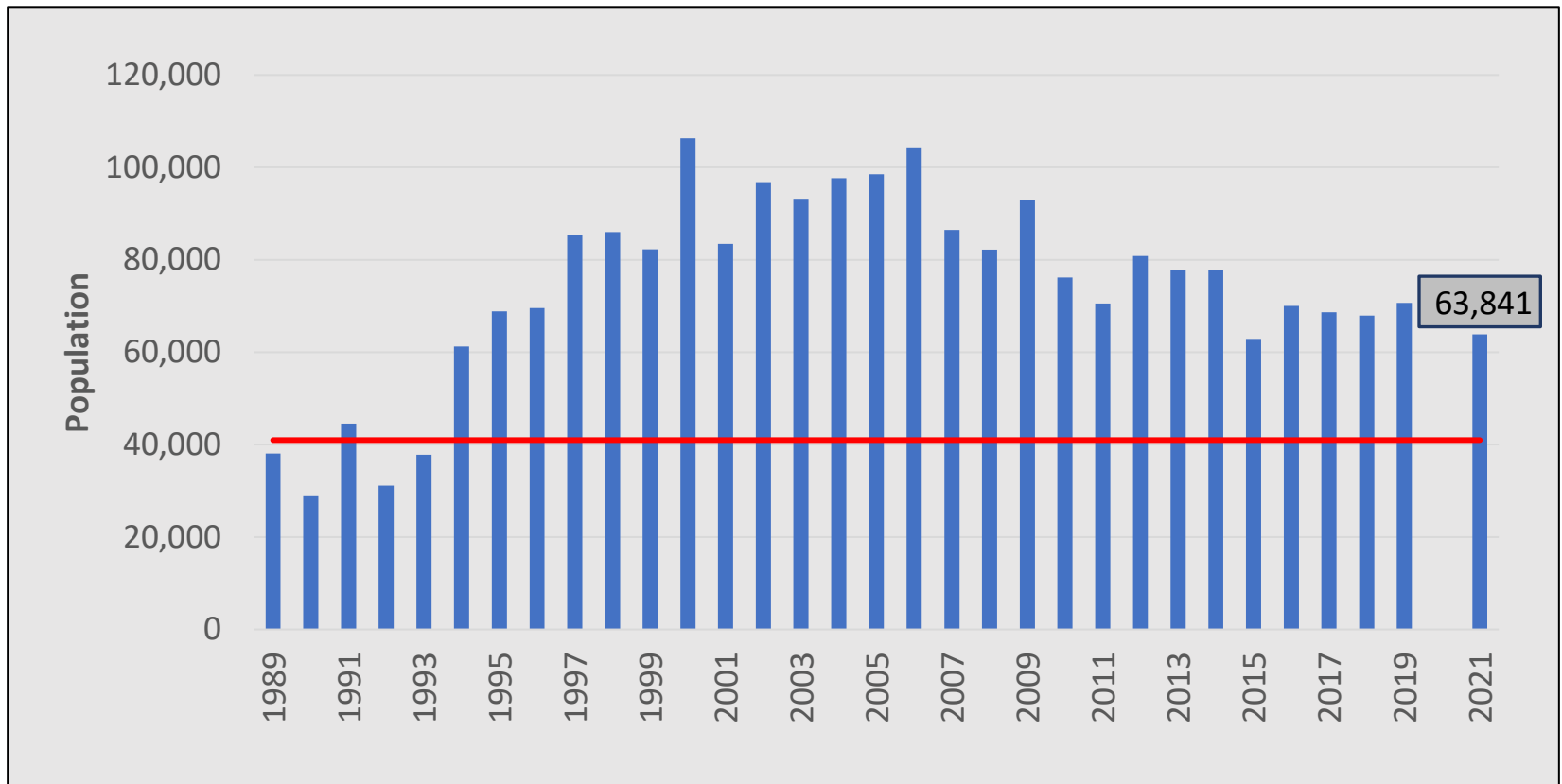
No permit is required for harassment

How NJ's Resident Population Got Established

In early 1900's, Canada geese were nearly eliminated due to unregulated harvesting of eggs, commercial hunting, and drainage of wetlands

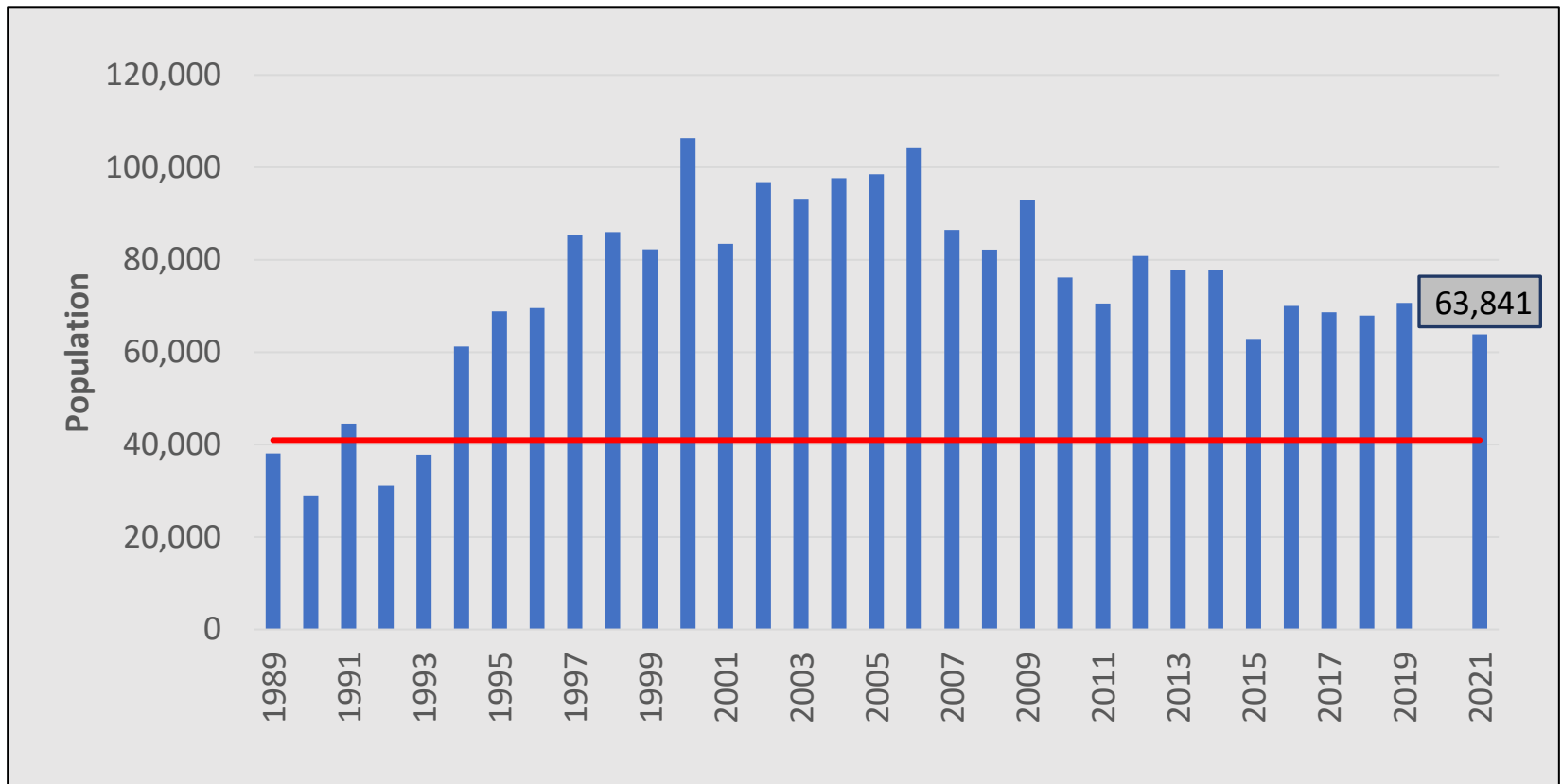
1. The release and/or escape of captive birds from private waterfowl breeders and hunters
2. Purposeful introductions from adjacent states and within the NJ

NJ's Resident Canada Goose Population



New Jersey has the highest human density in the nation and the highest resident goose density on the east coast

NJ's Resident Canada Goose Population



New Jersey's population objective for resident Canada geese is 41,000 birds based on a mean population from the early 1990's when damage and nuisance complaints were at more tolerable levels

(Atlantic Flyway Resident Population Canada Goose Management Plan)

Annual Survival of Resident Canada Geese

	New Jersey Urban Geese	New Jersey Rural Geese
Survival Rate:		
Young	82.8%	66%
Adult	72.4%	72.8%
Harvest Rate:		
Young	2.2%	9.7%
Adult	3.8%	7.8%

In addition, success of eggs hatching was found
higher in urban than rural areas

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All Native Birds

Have a place and role in the ecosystem
AND
Have aesthetic and recreational value



Can You Name Some Human-Wildlife Conflicts with Canada Geese



- Fecal accumulations
- Lower water quality
- Closure of swimming beaches
- Aggressive birds
- Property damage to lawns or golf greens
- Road or aircraft hazards

Integrated Wildlife Damage Management

The use of multiple methods to help
alleviate the problem

DETERRENTS:

Eliminate feeding

Visual aides

Exclusion

Habitat modification

Repellents

HARASSMENT:

Pyrotechnics

Propane cannon

Auditory devices

Dog harassment

POPULATION MGMT:

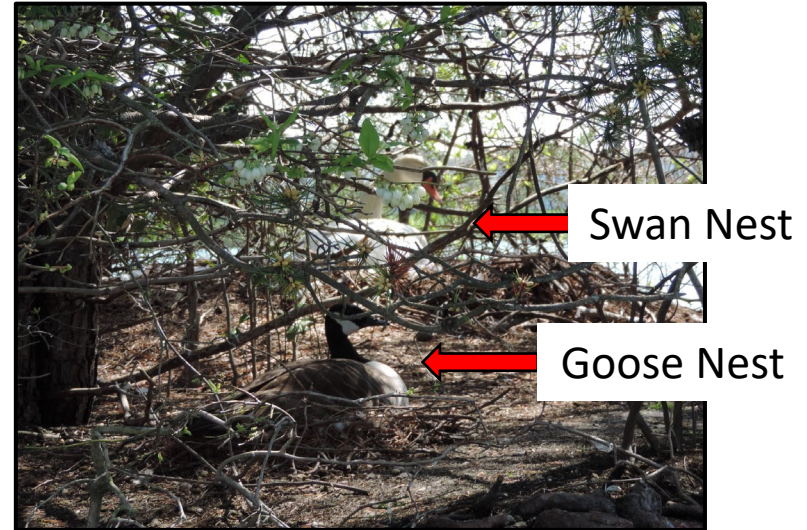
Depredation permits

Regulated sport hunting

Nest & egg
management

Mute Swans Won't Deter Geese

Do not introduce mute swans to an area



- Mute swans are a non-native species
- Not effective deterrent
- Can cause similar conflicts as geese:
 - Fecal accumulation in water
 - Aggression towards people/boaters

Deterrents:

- Eliminate feeding
- Visual aides
- Exclusion
- Habitat modification
- Repellents

Eliminate Wildlife Feeding



Bread has no nutritional value for birds



Nutritional defect called "Angel Wing"

- Unintentional feeding should be avoided as well
- Feeding results in abnormally high concentrations of birds in the area which can lead to damage and possible spread of disease between waterfowl
- Feeding can result in birds becoming aggressive towards humans outside of the nesting season

Visual Aides

- Lasers or beacon lights
- Flagging / reflective tape
- Balloons
- Predator decoys / silhouettes



Exclusion and Habitat Modification:

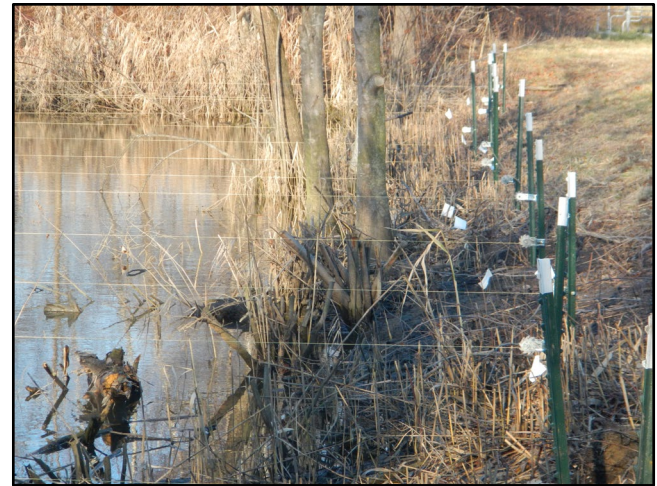
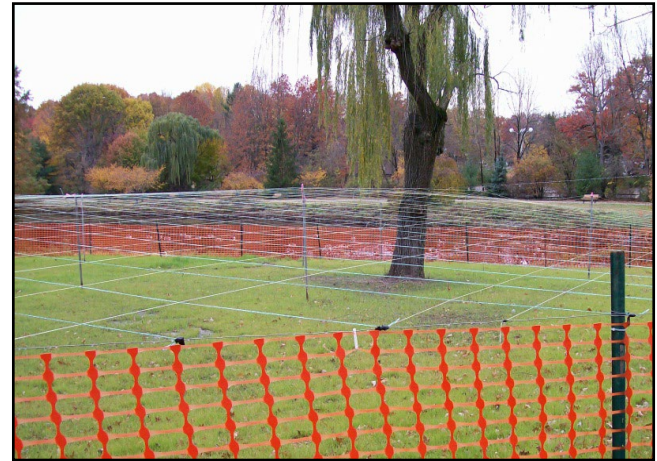
Goal is to limit easy access from water to land and disrupt line of sight to spot potential predators

- Maintain grass height at 8+ inches
- Limit and avoiding planting preferred foods such as succulent grasses
- Leave tall vegetation and shrubbery around water sources or where birds loaf



Exclusion and Habitat Modification:

- Turn off water aerators in ponds and allow water to freeze
- Detention ponds for storm water instead of retention ponds
- Fencing (30 inches high) between water sources and mowed grass
- Grid wire systems



Lawn Repellents



CONTAINS:

Methyl anthranilate (MA)

OR

Anthoquinone (AQ)

May also contain UV additive
that changes color of grass to
geese but not humans



Lawn Repellents

Methyl anthranilate (MA)

A grape flavor food additive approved by FDA for human consumption

Used in beverages, ice creams and chewing gum for over forty years

Naturally occurs in concord grapes, blossoms of gardenias and more

Causes minor irritation to the bird's eyes, nose and/or mouth



Lawn Repellents

Anthoquinone (AQ)



An organic chemical that occurs naturally in at least 94 known plant species

Geese must ingest; effects the bird's intestines

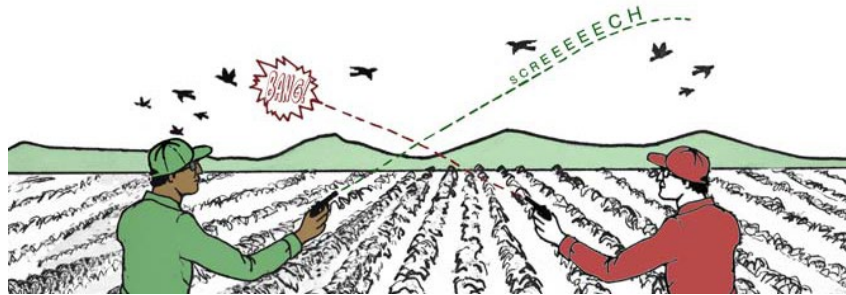


Harassment:

- Pyrotechnics
- Propane cannons
- Auditory devices
- Dog harassment
- Remote controlled cars/boats

Pyrotechnics

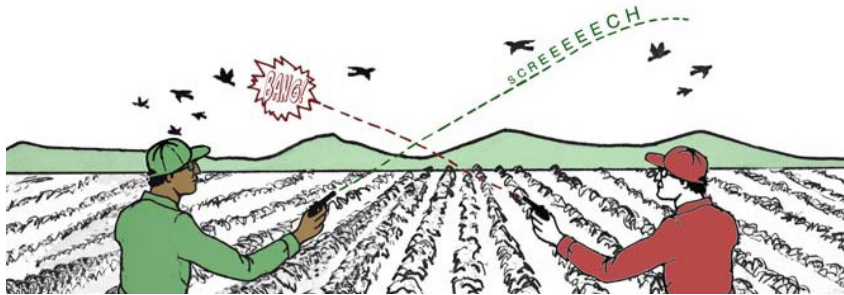
Specialized explosive devices used to disperse nuisance wild animals without injuring them



- No permit required for most brands and types of pyrotechnics
- Bangers have a range of 50-125 ft while screamers/whistlers have a range of 250-300 ft; both produce noise equaling 100 decibels

Pyrotechnics

Specialized explosive devices used to disperse nuisance wild animals without injuring them



- Check with local government for noise ordinances regulations
- Eye and ear protection required; recommend storage in a magazine
- Use caution during dry or windy weather; can be fire hazard

Other Auditory Devices



Air Horn



Propane Cannons



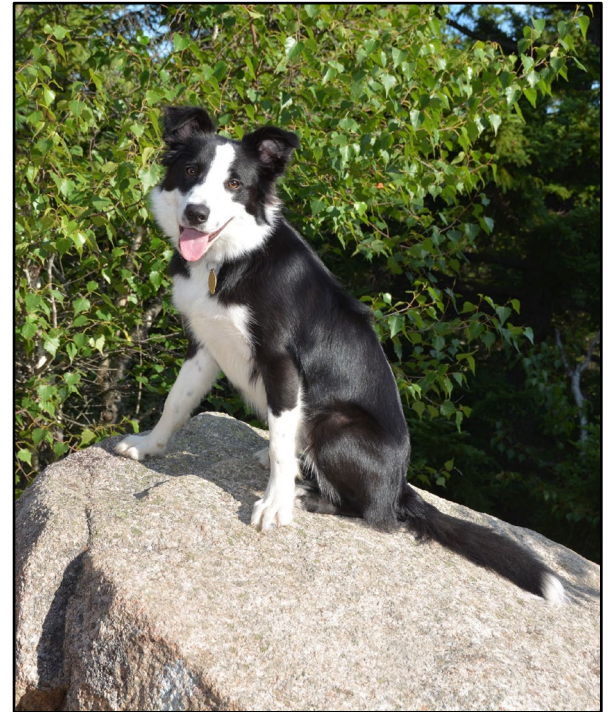
Sound Systems

Bird hear at same level as humans
Ultrasonic devices wouldn't be effective

Harassment

Defined as to annoy or disturb persistently

- Dog
- Vehicle, golf cart, kayak, on-foot
- Remote controlled cars or boats
- Falconer
- Kites



Drones are currently not allowed for harassment
of wildlife and birds in New Jersey

There is no single solution!



Presentation Overview

- New Jersey's Canada goose population
- Harassment and deterrents techniques
- Population management (egg addling)



Population Management

- Depredation permits
- Regulated sport hunting
- Nest and egg management (egg addling)





Federal Depredation Permits



- Issued by United States Fish and Wildlife Service (USFWS)
- Allows for limited lethal control of geese
- May be appropriate for places such as farms and golf courses
- Twelve question application including damage occurring, monetary loss, and non-lethal techniques used

Regulated Sport Hunting in New Jersey:



- September Season
 - Whole month; entire state; bag limit of 15 birds per day (most liberal since only resident geese present)
- Regular Season
 - Certain days within November-January; northern, southern and coastal zone; bag limit of 1-2 birds per day
- Special Winter Season
 - Mid-January to mid-February; only certain parts of state; bag limit is 5

What is Nest and Egg Management

Reproductive control through treatment (addling) of Canada goose eggs so that they do not hatch

In the next slides, we will discuss:

- Why conduct

- Who can carry out work

- When to carry out work

- Where to look for nests

- What to look for

- How to treat eggs



Why Conduct Canada Goose Nest and Egg Management

- Helps maintain the resident Canada goose population on a local level
- Helps alleviate droppings associated with family groups
- Allows for harassment to be more effective since young, who cannot fly, are not present





Version P1.8

Welcome to the Resident Canada Goose Nest and Egg Registration Site. If you are a landowner, homeowner's association, public land manager, or local government in the lower 48 states or the District of Columbia, you may register at this site for federal authorization to destroy resident Canada goose nests and eggs on property under your jurisdiction.

You must register each year prior to taking nests and eggs. You must register between January 1 and June 30 of the year in which the nests and eggs will be destroyed. You must also enter the individual name of employees or agents who may conduct the work on your behalf. You must be at least 18 years of age to register.

Each registrant must return to this site by October 31 to report the number of nests with eggs which were destroyed, for each month and location county. You must report even if you conducted no activity. You will not be able to register for future seasons if you have an outstanding report after 12/31 of the present year.

Please note that some states do not participate in this registration program or have additional or stricter requirements. It is very important that you review the list of State Agency Contacts and Information link below to determine whether you should proceed with registration.

[User's Guide](#)

[Frequently Asked Questions](#)

[Management of Canada Goose Nesting](#)

[Text of Regulation](#)

[State Agency Contacts and Information](#)

[Summary Data](#)

System Requirements: Pages are best viewed at 640 x 480 resolution with Internet Explorer 5.0 or higher. Cookies and JavaScript must be enabled. To view or print online documents, you will need Adobe Reader.

OMB No. 1018-0133

Expires 1/31/2019

Please do not use the internet browser back or next buttons to navigate this site.

To use the Resident Canada Goose Nest and Egg Registration Site, you must have a valid e-mail address.

New User [Click here](#)

to select applicant type and create a login, password, and account profile.

Existing User Login

Required fields are indicated with a red asterisk *

User Login ID

Password

[Forgot User Login ID or Password?](#)

Submit

Exit

Who Can Carry Out Work:

- Landowners who obtain free online registration
- Private companies
- USDA - Wildlife Services

[Permits Home Page](#)

[Notices](#)

[Contact RCGR](#)

Tips on Searching for Canada Goose Nests

- Property should be searched for nests between late March and late May
- Property should be searched every two weeks
- Concentrate search around water sources – ponds, creeks, marshes.
- Some geese nest in plain site while other hide their nests
- When person approaches the nest, some geese may be aggressive, others vacate nest and some try to blend in
- Nest searching and egg treatment should be done annually

WHERE DO GEESE NEST?



Anywhere and everywhere



Typical Nesting Spots





Unusual Nesting Spots



What to Look for: When Goose is Present

- If open area, goose sitting on nest or same spot for few days/all day
- If denser vegetation, their white cheek patch or buff chest (brown body will blend in)
- Lone goose which is male lookout, meaning female is likely sitting on nest
- Goose that suddenly appeared in water near shoreline (female that got scared off nest)
- Goose that is not happy when you approach a certain area



What to Look for: When Female is Off Nest

- Eggs and/or down feathers, but female may have covered nest
- Unusual piles that:
 - Form a 12-24 inch circle
 - Few inches high
 - Made of materials immediately near nest (phragmites, leaves, pine needles)



Egg Size of Common Waterfowl



Mallard
2.3 inches long



Canada goose
3.6 inches long



Mute swan
4.5 inches long

Incubation (Female)



- Lays one egg per day
- Average 5 eggs but ranges from 3-10 eggs
- Starts incubation after last egg is laid
- Incubates eggs for 28 days (on nest almost 24/7)
- Lines nest with down feathers plucked from her belly

Nest and Egg Addling Techniques



Approved methods include:

- Oiling
- Puncturing
- Shaking

(Freezing is not an approved method under the online registration)

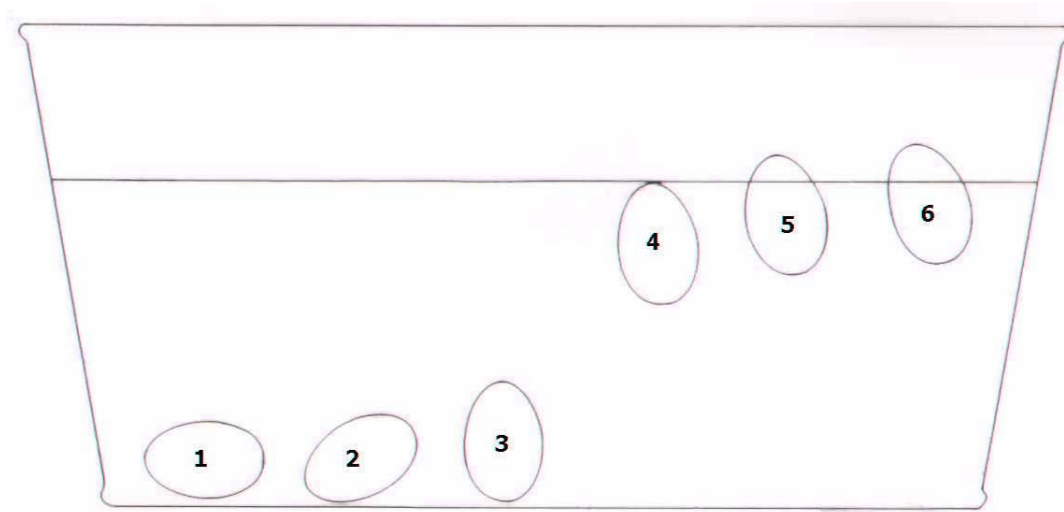
Most Common Method: Oiling

- Use 100% food-grade corn oil
- Mark each egg
- Apply oil to top 2/3 of egg (excess will cover the remaining 1/3)



Egg Float Test

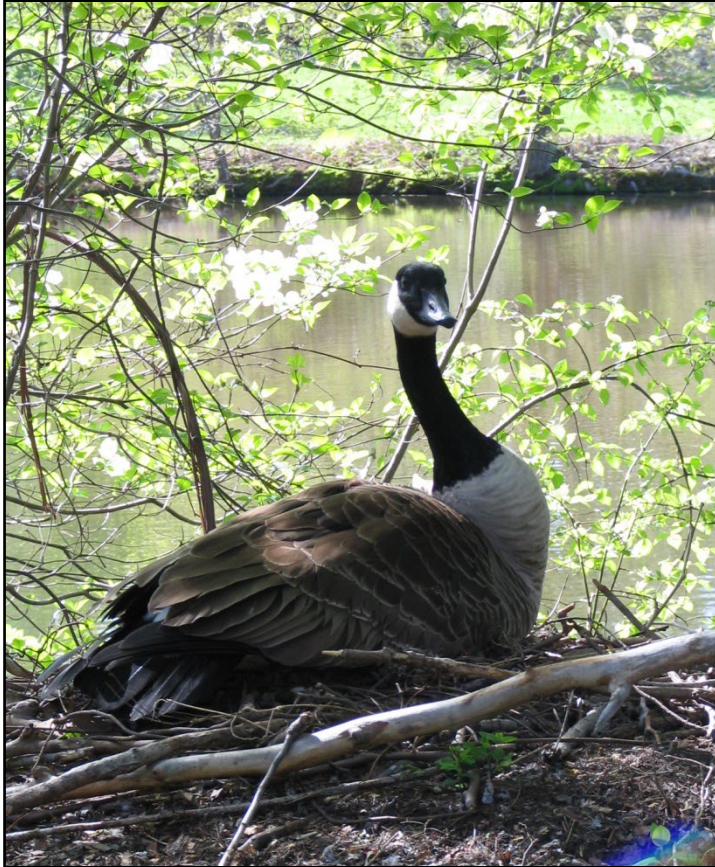
The Humane Society of the United States notes,
“In Canada geese, eggs that are less than 14 days old can be
addled humanely.”



Days of incubation:

- » Egg 1: 0-3 days
- » Egg 2: 4-8 days
- » Egg 3: 9-13 days
- » Egg 4: 14-18 days
- » Egg 5: 19-23 days
- » Egg 6: 24-27 days

Why Return Eggs to Nest?



- Prevents pair from renesting
- Female will likely still incubate addled eggs anywhere from few days to few weeks
- Nest and eggs can be removed if location is threat to human safety

Approaching the Nest

Some geese may be aggressive



- Best if two people approach a nest
- Do not hesitate when approaching nest
- Watch out for their wings and bills or birds that may fly at you
- **NEVER TURN YOUR BACK ON EITHER GOOSE!**



USDA's Nest and Egg Work

- Conduct work from late March to late May
- Visit site approximately five times (every 2 weeks)
- Each visit, look for new nests and check existing nest
- Puncture (addle) eggs and return them to nest
- Need written permission from landowner before addling eggs when nest is on private shoreline



Summary of Integrated Goose Management

1. There is no SINGLE solution
2. Eliminate intentional feeding
3. Use multiple techniques and be persistent so birds don't become accustomed to one method
 - Exclusion with grid wire, fence, or heavy vegetation along shorelines
 - Pyrotechnics (daytime) and/or laser (night)
 - Dog or other harassment
4. Annual nest and egg treatment



?? QUESTIONS ??

