

Managing Vertebrate Pests
“It takes one to know one”
Guest Lecturer Justin Vitullo

Legal Restrictions:
Vertebrate pest management is governed by more laws than insect pest management. Special laws and regulations restrict how and when you can hunt and kill many animals:

- Migratory Bird Treaty Act
- Pesticide Laws
- Endangered Species Act
- County Regulations
- State game and Fish Regulations
- Municipal Regulations

Vertebrate pests can be managed by IPM

Cultural Control: Landscape Management tactics that discourage animals from eating the landscape

- Control weeds and thin out dense plantings at building foundations that can protect rodents from birds of prey.
- Select unpalatable plant varieties
- Plant barrier vegetation
- Use ornamental fences
- Use temporary fencing for seasonal damage
- Use rock mulch (if it does not harm plants)
- Killing animals should be pursued after other options have been explored and failed.

Bird Management

Migratory bird treaty act- Protects all birds except pigeons, European starlings and House sparrows



Pigeon



European Starling



House Sparrow

Canada Geese

- People feed geese and they are attracted to turf and water. Problem: create hazardous waste that can pollute water and close beaches. Also knock down toddlers.

Cultural Control: Plant plants with hair or tough leaves to create barriers on land to keep geese away from public paths. Design ponds with steep slopes to prevent geese from easily moving to turf areas.

Mechanically remove geese- use herding dogs or leaf blowers. Chemicals with a bad taste can act like repellants.

Goose•B•Gone™
Duck and Goose Repellent

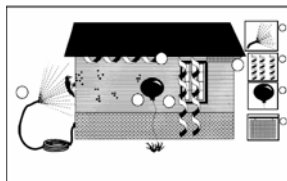


Woodpecker Damage

Tree damage is characterized by a shredded or ragged appearance. "Drumming" by woodpeckers damages homes and can be a nuisance

Control:

- Scare Tactics
- Exclusion
- Repellants and lethal tactics



Woodpeckers may be an indicator of some borers.

DOWNY WOODPECKER



HAIRY WOODPECKER

PILEATED WOODPECKER

The yellow-bellied sap- sucker

Damage: neat rows of 1/4" holes closely spaced.

Most often, they bore on trees rather than structures since they feed on sap and insects attracted to the sap.

- Control often involves use of devices that distract and discourage birds from beginning to drill.









Turf Pests

Moles: active day and night throughout the year.

- most active near the soil surface during the spring and fall on damp days or following rain showers.
- When the ground surface becomes frozen in the winter, or very dry during the summer, moles use only the deeper burrows.
- Daily peak activity periods are during the morning hours, although moles may be seen working off and on throughout the day and night.
- Mates in February and March, with a single litter of three to five young born later in the spring following a six-week gestation period.
- Young moles grow rapidly and leave the nest to fend for themselves at about one month of age.



Mole damage- raised ridges in lawn and turf. Moles feed primarily on earthworms, beetle grubs, ants, and other animals which live in the soil. A smaller part of their diet consists of various seed and vegetable matter. They usually do not eat bulbs or the roots of garden plants. Several species of mice also use mole run- ways; often these are the culprits responsible for the occasional damage to roots and tubers in flower and vegetable gardens. In addition to eating insect and other soil arthropods, they also eat as earthworms.

Control:

- Poisons are hard to get moles to eat.
- Cats may be successful in reducing populations.
- Spring loaded kill traps work the best.



A network of mole runways in a yard. The arrows indicate good locations to set traps. Avoid the twisting surface ridges, and do not place traps on top of mounds



Vole Damage

Dig trenches, Can cause problems chewing through irrigation systems.

Voles eat grain. Poison baits made of grains – laced with toxins control voles



Vole tooth marks are about one-sixteenth inch wide.

Deer Damage

- Rip and tear plants when eating.
- Deer trample many crops as they move about the field
- Cause car accidents.
- Carry nasty things on them like ticks that vector lyme disease.



Black-legged ticks (*Ixodes scapularis*) Responsible for transmitting Lyme disease

Deer Control:

- Taste repellants work but spray repellants can be washed away.
- Electric and Non-electric fencing
- Dogs
- Shooting, "property owners in Massachusetts are entitled to destroy deer causing property damage under Massachusetts General Laws chapter 131, section 37. No permit is required."
- Hunting, "conducted by licensed hunters during the regular statewide hunting seasons."
- Offal- remains from a slaughter house to keep deer away doesn't work.



References

<http://www.fnr.purdue.edu/PubsOnLine/Faq16w.PDF>

<http://www.entm.purdue.edu/entomology/ext/targets/ADM/ADMPDF/ADM-5.htm>

<http://www.entm.purdue.edu/entomology/ext/targets/ADM/ADMPDF/ADM-10.htm>
