Vertebrate Pest Management

1. What general habitat needs do animals find in a landscape that keep them around?
   - Food (p. 406)
   - Water (p. 406)
   - Shelter (p. 406)

2. What are the best nonlethal techniques for vertebrate pest management?
   - Alter the environment to make it less attractive (remove food, cover, etc.) (pp. 406-407).
   - Tighten foundations and roof lilies to make houses inaccessible (p. 406-407).
   - Fence in crops or cover them with net (pp. 406-407).

3. How do you distinguish between a mole problem and a gopher problem?
   - Shape of the mounds (p. 411)
   - If you have the body, the paws and tooth structure (p. 411)

4. Moles get blamed for a lot of vegetation damage, yet they eat mostly earthworms, grubs, and soil insects. What animal usually is the culprit?
   Meadow mice (also known as field mice or voles), which use mole runways and damage vegetation (p.411).

5. What are some methods for reducing plant damage from field mice (voles)?
   - Eliminate moles, and collapse the mole runways voles use.
   - Keep grass mowed short to allow hawks, cats, and owls to reduce the vole population (p.414).
   - Remove vegetation in a 36-inch circle around new trees (p. 414).
   - Pick up fruit and other food attractive to voles (p. 414).
   - Don't leave potatoes, carrots, and other root crops in the ground (p. 414).
   - Avoid the use of black plastic, mulches, and landscape fabrics that provide cover (p. 414).
   - Eliminate wood and brush piles that provide cover (p. 414).
   - Place hardware cloth around the trunks of shrubs and small trees (p. 414).
   - Don't let bird feed fall on the ground from feeders (p. 414).
   - Consider trapping and baiting as a last resort (pp. 414).
6. **Why are repellents often not consistently effective against deer browsing?**
   - Repellents might be washed off by rain or decomposed (p. 416).
   - Deer might have such established habits that they are not deterred by the repellent (p. 416).
   - Some repellents are less effective than others (p. 416).

   **What would improve the effectiveness of repellents?**
   - Apply them early and often (p. 416).
   - Protect plants with mechanical barriers (p. 415).
   - Use plants that deer don't like (p. 416).

7. **A client calls with a question about strange sounds under his house. How would you tell him to approach the problem?**
   - Remove all food, especially cat or dog food, easily available to animals.
   - Close up openings under the house only after he is sure the animals are gone.
   - Consider using a live trap, but check it often and release non-target animals.

8. **What are some reasons for not releasing a live-trapped animal back into the wild?***
   - It could cause problems for other houses or farms.
   - Many live-trapped animals won't survive if removed from their known surroundings (p. 418).
   - The animals may transmit diseases to new areas.

9. **Rats and mice can be either killed with poison baits or trapped. What are some advantages and disadvantages of each method?**

   **Baits (pp. 407-408)**
   - Advantages: Baits often work quickly. You can vary baits to avoid bait shyness.
   - Disadvantages: Animals can die in the walls, creating a horrible smell. There is a small chance of injury to non-target animals, especially if rats or mice move the bait.

   **Traps (p. 407-408)**
   - Advantages: Used properly, traps are not dangerous to non-target animals. When animals are trapped, you can dispose of the body. No poisons are involved. Traps are very effective on mice.
   - Disadvantages: When handling traps and bodies, you might be exposed to diseases and parasites. Rats become wary and you might be able to trap only a small percentage of the population. *You may need to use other chapters, additional reference materials, or your own experience to answer this question fully.*