

Department of Environmental Conservation

Division of Fish and Wildlife

New York State
Wildlife
Rehabilitation
Practice
Examination
2013



Photo credit: Christopher Schiralli



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Acknowledgements

The 2013 revision of the NYSDEC Wildlife Rehabilitation Study Guide and Wildlife Rehabilitation Practice Examination represent the best efforts of people who care about wildlife. These booklets were produced by wildlife professionals: veterinarians, biologists, and rehabilitators. These documents should not be considered the end point of a project but rather the beginning of a cooperative process among wildlife professionals for the benefit of wildlife in New York State.

The New York State Department of Environmental Conservation, Division of Fish and Wildlife would like to say thank you to all the individuals and organizations that contributed to this study guide and all previous versions.

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Some questions will be multiple choice, others are true/false answers. Answers are given here to help you understand the concept of each question.

I. New York State and Federal Regulations

- 1. Which of the following is the only animal a licensed wildlife rehabilitator is authorized to care for without a special federal permit?
 - a. a river otter
 - b. a baby seal
 - c. a sea turtle
 - d. a piping plover

Answer: a. Seals and sea turtles require special permits. A piping plover is a federally endangered species, and while you may accept the plover, you must call the Special License unit (518-402-8985) immediately and take it to a federally licensed rehabilitator suggested by this unit.

- 2. A New York State wildlife rehabilitation license allows the rehabilitator to:
 - a. medicate an injured peregrine falcon
 - b. raise a fawn brought in by an animal control officer for placement in a nature center
 - c. keep baby animals like raccoons for 2 years to give them a better start
 - d. none of the above

Answer: d. This license does not permit the holder to practice veterinary medicine. Animals kept for educational purposes are covered by different regulations, not the wildlife rehabilitation license. Young animals must be released at the very earliest, biologically appropriate opportunity. On rare occasions, this may mean keeping an animal over one winter, but certainly not for two years. Raccoons require an RVS (Rabies Vector Species) license. Any wildlife rehabilitator that takes in a threatened or endangered species shall contact the NYSDEC Special Licenses Unit within 48 hours.

- 3. Who should you always contact if you find an injured Bald Eagle?
 - a. a newspaper
 - b. the police
 - c. a humane society
 - d. the Department of Environmental Conservation

Answer: d. If you receive an endangered species, your license requires you to notify the NYSDEC Special License Unit within 48 hours (518-402-8985).

4. A licensed wildlife rehabilitator is required to submit an annual report of all animals handled, and listed by species. Which of the following is an unacceptable identification?

- a. sea gull
- b. red fox
- c. American robin
- d. gray squirrel

Answer: a. There are many species of gulls, some common, some rare, but none are named sea gull. Accurate identification is important.

5. True or False. Reptiles and amphibians have no legal protection under New York State law.

Answer: False. Under Environmental Conservation Law 11-0103.2.c., many species of reptiles and amphibians are protected as "small game" species having closed season.

- 6. In the State of New York, licensed wildlife rehabilitators must:
 - a. be over the age of 16 years
 - b. be a resident in New York
 - c. pass a written examination with a score of 80% or higher
 - d all of the above

Answer: d. All of the above are some of the New York State requirements of your wildlife rehabilitation license.

7. True or False. A wildlife rehabilitation license is valid for a one-year period.

Answer: False. Your wildlife rehabilitation License has been changed. As of 2011 your license is valid for 5 (five) years. You must submit a completed Wildlife Rehabilitation Log and Tally each year.

- 8. Licensed wildlife rehabilitators must submit an annual report of activities for the preceding calendar year no later than:
 - a. January 1
 - b. January 31
 - c. July 1
 - d. December 1

Answer: d. Your annual reports (Logs and Tally sheets) are due before December 1st each year. Annual reports require a list of every individual animal handled, the name of the person you received it from, the date you received it and the final disposition of the animal.

9. True or False. European Starlings, House Sparrows and Rock Pigeons are unprotected, introduced species, which may be kept or treated without a wildlife rehabilitation license.

Answer: True. But, remember please, these species are still protected by laws governing the humane care of animals.

10. A wildlife rehabilitation license may be revoked, or not renewed if the rehabilitator:

- a. keeps permanently crippled animals as pets
- b. releases animals in another state
- c. refuses to transfer or surrender an animal to a Conservation Officer, or an authorized staff member of the Department of Environmental Conservation, when directed to do so
- d all of the above

Answer: d. These are all violations of the terms of your license.

11. True or False. The primary intent of a Wildlife Rehabilitation License is to allow qualified people to provide legal care to sick, injured, orphaned or displaced wildlife so that they may be returned to the wild.

Answer: True. This activity is licensed to insure that qualified individuals are able to care for animals and return them to the wild. These wild animals cannot be kept as pets.

- 12. A NYS licensed wildlife rehabilitator does not have a federal license. Which type of birds may they treat?
 - a. Bald Eagle
 - b. American Robin
 - c. European Starlings
 - d. Common Loon

Answer: c. Only birds that are not federally protected may be treated without a federal license. These include European Starlings, House Sparrows, Pigeons, Turkey, Pheasant and Ruffed Grouse.

- 13. Someone holding a New York State wildlife rehabilitation license, but no federal license, can rehabilitate which of the following animal groups?
 - a. local reptiles and amphibians
 - b. migratory birds
 - c. marine mammals
 - d. sea turtles

Answer: a. Federal permits are required for migratory birds, marine reptiles and mammals, and endangered species (see the Study Guide for further information).

14. True or False. Licensed wildlife rehabilitators may accept donations, but it is illegal to charge a fee for rehabilitation of wildlife.

Answer: True. A licensed wildlife rehabilitator must form a 501(c)3 non-for-profit tax exempt organization to be able to legally accept tax deductible donations.

15. True or False. A wildlife rehabilitation license authorizes the license holder to practice some veterinary medicine.

Answer: False. Licensed wildlife rehabilitators are not licensed to practice veterinary medicine which includes diagnosing disease or prescribing any treatment. This is

why it is recommended to consult with cooperating veterinarians to ensure that proper medical care is administered to injured, orphaned or distressed wildlife.

16. True or False. Animals that die while being cared for by a licensed wildlife rehabilitator may be given to a museum or some other educational institution holding proper permits.

Answer: True. All carcasses need to be legally disposed of according to your town ordinance which may include giving carcasses to a museum or educational institution that holds the proper permits.

17. True or False. In addition to a state wildlife rehabilitation license a federal permit from the U.S. Fish and Wildlife Service is required before migratory birds, such as hawks, ducks, and song birds, may be rehabilitated.

Answer: True. Both a state and federal license are required for the above birds.

18. True or False. It is necessary to have the proper state licenses and/or federal permits before rehabilitating wildlife.

Answer: True. No wildlife rehabilitation may occur without the proper licenses in place.

19. True or False. One of the duties of a licensed wildlife rehabilitator is to participate in training programs that are suggested or required by the NYSDEC.

Answer: True. The NYSDEC requires additional training to acquire an RVS (Rabies Vector Species) species license. Attending seminars is an excellent way to learn additional information, to network with your colleagues and to improve your skills.

20. True or False. Licensed wildlife rehabilitators must notify the NYSDEC at least 90 days in advance of moving his/her place of operation to a new location.

Answer: False. One of the requirements of the license is that the licensee shall notify SLU within 5 days of the official change of address. Make sure you review all the requirements of your license annually.

21. True or False. Assistant wildlife rehabilitators must be nominated by a Class II wildlife licensed rehabilitator and may assist only that nominating Class II licensed wildlife rehabilitator.

Answer: True. The Class II licensed wildlife rehabilitator may be assisted by and provide training to one or more assistant wildlife rehabilitators upon approval by the department of an outline of training methods and procedures. This will ensure control over the activities of appointed assistant wildlife rehabilitators. But the Class II licensed wildlife rehabilitator must be responsible for the proper performance of duties of all assistant wildlife rehabilitators whom he or she nominated, trained, and employs.

22. True or False. One of the criteria to becoming a licensed wildlife rehabilitator is that a person must be at least 18 years of age or older.

Answer: False. The applicant must be 16 years of age.

23. True or False. According to the regulations governing licensed wildlife rehabilitators, you must submit a biannual report of your activities.

Answer: False. An annual report (log and tally sheet) is due on December 1st, of the year.

- 24. True or False. According to the regulations governing licensed wildlife rehabilitators, you must consult licensed veterinarians, as necessary, to ensure proper care is administered to injured or debilitated wildlife.
 - Answer: True. Licensed wildlife rehabilitators must be in continual contact with their licensed veterinarians and colleagues to ensure that proper care is administered to injured or debilitated wildlife.
- 25. True or False. As a licensed wildlife rehabilitator in New York State you may charge a fee for the care and feeding of distressed wildlife you receive from the public.
 - Answer: False. Your license conditions, state you must not require payment for the care or treatment of wildlife. Nothing herein, however, will prevent the licensed wildlife rehabilitator from accepting voluntary donations made toward rehabilitation services.
- 26. True or False. According to the regulations, authorized department employees are allowed to inspect wildlife rehabilitation operations and records at any reasonable time.
 - Answer: True. The NYSDEC always retains the right to inspect the operations of your facility.
- 27. True or False. The licensed wildlife rehabilitator must submit to the NYSDEC, in a timely manner, all required records and reports properly executed.

Answer: True. Annually one must submit his/her Log and Tally sheet.

- 28. True or False. A licensed wildlife rehabilitator Identification Card must be carried by the licensee at all times.
 - Answer: False. A licensed wildlife rehabilitator must display in a prominent place the license provided by the department. A licensed wildlife rehabilitator identification card must be carried by the licensee when in possession of wildlife afield.
- 29. True or False. A licensed wildlife rehabilitator must display at his/her facility, in a prominent place, the license provided by the NYSDEC.
 - Answer: True. It is a requirement of your wildlife rehabilitation license. This is verification for the public surrendering wildlife to you for care.
- 30. True or False. A licensed wildlife rehabilitator rendering care, should not attempt to diagnosis or treat wildlife beyond his/her level of skill and training.

Answer: True. Licensed wildlife rehabilitators must consult licensed veterinarians as necessary to ensure that proper care is administered to injured or debilitated wildlife.

31. True or False. According to the regulation, wildlife rehabilitation means the practice of providing care for injured or debilitated wildlife including their capture, housing, feeding, emergency treatment and release to the wild.

Answer: True. The licensee is authorized to provide rehabilitative care to injured, orphaned or distressed wildlife. Such care may include capture, possession, transport, housing, feeding and release to the wild.

32. True or False. A Class I wildlife rehabilitation licensee is authorized to train as many assistants as needed.

Answer: False. You must possess a valid Class II license in order to legally provide training to one or more assistant wildlife rehabilitators. You must be a Class I licensed wildlife rehabilitator for at least two years before you can apply for a Class II level.

33. True or False. A wildlife rehabilitation license authorizes you to trap a Woodchuck that is causing a nuisance in a neighbor's yard.

Answer: False. This is not covered by your license. Such problems should be referred to licensed animal control personnel such as a nuisance wildlife individual. This license is also available for licensed wildlife rehabilitators after taking the required exam with a passing grade of 80%. A licensed wildlife rehabilitator can perform public education and advise the public about how to discourage wild animals from becoming pests, for example, put caps on chimneys, make garbage unavailable etc. In addition, under Environmental Conservation Law 11-0523, any homeowner may trap, but not transport from their property (or hire someone to remove) animals causing problems on his/her property.

34. True or False. A licensed wildlife rehabilitator who lives within 10 miles of an adjoining state may accept animals from that state.

Answer: False. You may not import or accept wildlife from outside the New York State without written permission from the Special Licenses Unit.

35. True or False. A licensed wildlife rehabilitator may exhibit distressed wildlife held pursuant to his/her wildlife rehabilitation license.

Answer: False. The licensee shall not exhibit wildlife held pursuant to this license. The wildlife rehabilitation license only authorizes the licensee to provide care for distressed wildlife. Distressed wildlife may not be exhibited under any circumstances or license. While not all animals are suitable to be educational ambassadors those educational animals that are must be held under a separate license.

- 36. True or False. A licensed wildlife rehabilitator must submit a completed Wildlife Rehabilitation Log and Tally on or before December 1st annually.
 - Answer: True. A licensee must keep and maintain a record of his/her operations known as the Wildlife Rehabilitation Log and Tally Sheet. A completed Log and Tally Sheet is required in order to renew a wildlife rehabilitator license.
- 37. True or False. Endangered and threatened species may not be rehabilitated under a wildlife rehabilitation license.
 - Answer: False. A licensee must notify the NYSDEC Special Licenses unit within 48 hours of the acquisition of any endangered or threatened species. A licensed wildlife rehabilitator is not prohibited from rehabilitating endangered or threatened species but must have permission, training and experience to handle the species.
- 38. True or False. A wildlife rehabilitation license allows the licensee to rehabilitate and release bats.
 - Answer: False. Licensed wildlife rehabilitators in New York State are prohibited from rehabilitating bats without the proper Rabies Vector Species license.
- 39. True or False. A veterinary license authorizes a veterinarian to rehabilitate and release distressed wildlife.
 - Answer: False. A licensed veterinarian may treat wildlife during the acute care stages, but without their own wildlife rehabilitation license, they must turn the animal over to a licensed wildlife rehabilitator for the animal's continued care and release.
- 40. True or False. The State of New York owns all fish, game, wildlife, shellfish, crustacea and protected insects in New York.
 - Answer: True. The 'ownership' of wildlife is vested in the state, in its sovereign capacity, for the benefit of all the public.
- 41. True or False. A New York State wildlife rehabilitation license is all that is required to rehabilitate migratory birds.
 - Answer: False. A federal, special purpose rehabilitation license and a New York State wildlife rehabilitation license are required before a person may rehabilitate migratory birds.
- 42. True or False. A licensed wildlife rehabilitator may accept distressed wildlife from outside New York State.
 - Answer: False. Licensed wildlife rehabilitators in New York are prohibited from accepting distressed wildlife from outside New York. Some birds may be allowed by obtaining prior permission and holding proper permits from both state and federal agencies.
- 43. True or False. A licensed wildlife rehabilitator may give a distressed raptor to a licensed falconer as part of the bird's rehabilitation program.

Answer: True. A licensed wildlife rehabilitator or an assistant wildlife rehabilitator may transfer a raptor to a licensed falconer for reconditioning purposes.

- 44. In order to keep a non-endangered mammal for education, you would need a permit from which government agency?
 - a. state
 - b. federal
 - c. USDA
 - d. both a & c

Answer: d. You need a "collect and possess" license and a USDA exhibition license. A federal license is only applicable with endangered species crossing state lines, or for any migratory birds.

45. True or False. Your rehabilitation license gives you permission to use animals in educational programs.

Answer: False. You cannot use wildlife patients as educational animals. They cannot be placed on view for the public. Educational animals are only those that are non-releasable and licensed under a proper educational permit.

46. True or False. Wildlife that dies or is euthanized, held under the authorization of a wildlife rehabilitation license, may be used as food for other wildlife held by the rehabilitator.

Answer: True. This is true from a legal perspective, but not advisable biologically. Using euthanized animals to feed other animals should be avoided. If the animal is euthanized by a means other than chemicals, and is ingested by another animal, this is a good way to transmit parasites and diseases to other patients. Also the chemicals used to euthanize are usually toxic. Legally, these dead animals may also be donated to an individual who possesses a valid license to possess such specimens, or they may be properly buried or incinerated.

47. True or False. Any licensed wildlife rehabilitator may rehabilitate an injured Canada lynx.

Answer: True. But since the Canada lynx is an Endangered Species in New York State, the licensee must notify the NYSDEC Special Licenses unit within 48 hours of the acquisition of any endangered or threatened species. A licensed wildlife rehabilitator is not prohibited from rehabilitating endangered or threatened species, but must have the training and experience to handle the species.

II. Common telephone problems

- 48. A caller tells you that her 6 year old just found a baby bird under a bush in the yard and wants to bring it to you for help. You ask the caller to describe the bird and find out that it has small wing and tail feathers. The proper response is:
 - a. bring it right in
 - b. look for a nest nearby and put the baby back in it
 - c. put the baby right back where it was found, or in close proximity
 - d. refer the caller to the regional NYSDEC office

Answer: c. The young of many bird species leave the nest before they can fly and spend at least a few days up in the branches of trees (owls), hiding under bushes (many songbirds), or following the parents about on the ground (killdeer). Birds at this stage are called fledglings and should be left right where they are. The parents often are not seen, because they are frightened by the presence of people. Rest assured, they are observing close by. Unless the adult birds are known to be dead, resist the urge to have the baby bird raised by a licensed wildlife rehabilitator. Parent birds always do a better job than a licensed wildlife rehabilitator.

- 49. When a healthy fledgling bird is reported to be 'orphaned,' the best advice is to:
 - a. take it in immediately for care and rehabilitation
 - b. place the bird in a nearby bush and leave the scene so the parents will return to their young
 - c. remain in the yard to observe the bird for awhile
 - d. ignore the situation

Answer: b. Check in a few hours to see whether the parent has returned for the bird, or watch from inside the house to ensure the fledgling remains safe from predators (cats, crows, dogs).

50. True or False. If someone calls and says they found a baby robin that cannot quite fly, sitting in a low branch in their back yard, the best thing to do is to tell them to bring it to a licensed wildlife rehabilitator to raise it where it will be safe.

Answer: False. You have no verification that this young bird is sick or injured, and it sounds like it is a fledgling whose parents are nearby, therefore no human intervention is necessary at this time.

51. True or False. When a person calls about a cat threatening a fledgling bird, the best advice is for them to bring the bird into the house and leave the cat outside.

Answer: False. For the bird's survival, it is far better to bring the cat indoors and leave the bird just where it is. As long as the bird has not been injured, its parents will be more successful at raising it properly than a licensed wildlife rehabilitator. Even if there are outdoor cats nearby, fledglings should still be left alone.

- 52. True or False. A fledging bird just out of the nest, but uninjured, should be given immediate human assistance.
 - Answer: False. The young of many bird species leave the nest before they can fly and spend at least a few days up in the branches of trees (owls), hiding under bushes (many songbirds), or following the parents about on the ground (killdeer). Birds at this stage are called fledglings and should be left right where they are. The parents often are not seen, because they are frightened by the presence of people. Rest assured, they are observing close by. Unless the adult birds are known to be dead, resist the urge to have it raised by a licensed wildlife rehabilitator. Parent birds will always do a better job than a licensed wildlife rehabilitator.
- 53. True or False. A fledgling bird should be returned to its nest as soon as possible.
 - Answer: False. Place the fledgling close to where it was found and in a protected area, like under a bush or on a nearby tree branch.
- 54. True or False. People should be advised to feed weak animals as soon as possible before taking them to a licensed wildlife rehabilitator.
 - Answer: False. The public should never be encouraged to give food or water to an animal because it can compromise its recovery or be fatal. The animal should be captured and transported to a licensed wildlife rehabilitator if it needs care.
- 55. True or False. If the caller has requested to have a migratory bird's nest removed from his yard, the licensed wildlife rehabilitator may obtain special permission to have the nest relocated.
 - Answer: True. The Federal Migratory Bird Treaty Act makes it illegal to possess any portion of a wild migratory bird, its eggs or nest. Under some special circumstances, the Federal Government will allow the licensed wildlife rehabilitator to relocate a nest.
- 56. True or False. Due to the possibility of containing parasites, natural birds' nests should not be used to house baby birds that are being raised by the licensed wildlife rehabilitators.
 - Answer: True. Often parasites are found in birds' nests making it unwise to reuse them.
- 57. True or False. The primary concerns when advising the public on how to rescue ailing wildlife are to first avoid injury to the rescuer and second avoid any further injury to the animal.
 - Answer: True. The licensed wildlife rehabilitator is responsible for assessing the situation and not putting the rescuer in harm's way. The safety of the rescuer should always outweigh the rescue of the animal.
- 58. True or False. When possible, people should be advised to transport wild birds in wire birdcages.
 - Answer: False. Advise people to transport wild birds in ventilated cardboard boxes. Wild birds will injure themselves in a wire cage. Wire cages should never be used. Do

not place any other objects in the box that may roll around and injure the bird during transportation.

59. True or False. When a bird's nest, containing young, has fallen out of a tree, it is possible to try to replace the entire nest (or a substitute nest) back in the original or nearby location.

Answer: True. The best practice is to re-nest the bird so that its parents can continue to raise it. There are many creative ways to make a substitute nest. It is the responsibility of the licensed wildlife rehabilitator to place the bird back in the nest or create a substitute.

60. True or False. Young, healthy, precocial birds, whose parents are not seen, should be observed from a distance to ensure the parents return.

Answer: True. Precocial birds are born ready to run. They do not need rescuing unless they are obviously injured or orphaned. Observe from a distance to see if a parent returns.

- 61. The public should be discouraged from handling any wild animal because of the:
 - a. possibility of injuring the animal
 - b. potential for the animal to injure the people
 - c. the animal may transmit disease to them
 - d. all of the above

Answer: d. It is the licensed wildlife rehabilitator's responsibility to ensure the safety of the public, and the animal, and to understand disease transmission and public health issues.

- 62. In which of the following circumstances should a person be advised to assist wildlife?
 - a. The young seem healthy with no immediate threats.
 - b. The parents are not around (though they are not known to be dead).
 - c. The animal is weak, thin, cold, injured, or plagued by flies or bees.
 - d. All of the above.

Answer: c. If an animal appears weak, thin, cold, injured or plagued by flies or bees, it is in immediate need of help and should be rescued by a licensed wildlife rehabilitator.

- 63. Small rabbits should be rescued:
 - a. when the mother leaves the nest
 - b. every time they are found by the public
 - c. when they run from you
 - d. when they are injured or the mother is dead and they are still too young to survive on their own

Answer: d. Finding a nest of young without a mother present does not mean they have been abandoned. Rabbits usually only feed their young at dawn and dusk, and often the adults will stay away from the nest at other times.

64. True or False. People finding a fawn with no mother in sight should remove the baby immediately and take it into the house.

Answer: False. Very few young animals are really orphans. Fawns are left unattended for hours, although the doe may actually be concealed from view. If the fawn is vocalizing continually, has flies and bees buzzing around it or is lying on its side with its legs stretched out, these all indicate symptoms of trouble. The licensed wildlife rehabilitator, however, should verify whether the fawn is in need of any assistance or not.

65. True or False. A fawn has been brought to a licensed wildlife rehabilitator. If only a short time has elapsed, and the exact location is known, a healthy fawn may be reunited with its mother.

Answer: True. Attempts should be made to reunite a fawn with its mother for up to three days.

66. True or False. A fawn, presumed orphaned, should be observed from a distance for at least 12 hours for you to be certain its mother is not really nearby.

Answer: True. It is normal behavior for a mother to feed its fawn during dawn and dusk and move away during the day. If the fawn is vocalizing continually, has flies and bees buzzing around it or is lying on its side with its legs stretched out, these all indicate symptoms of trouble.

67. True or False. Sometimes mother squirrels will attempt to retrieve young that have fallen out of the nest

Answer: True. Mother squirrels will often attempt to retrieve their young that have fallen out of a tree. Keep people and animals away to give the mother the opportunity to come back. The licensed wildlife rehabilitator will advise the caller to assess the condition of the juvenile squirrels. If healthy or uninjured they should be placed in a shallow, cardboard box out of direct sunlight and with supplemental heat to allow the mother an opportunity to retrieve them. It may take up to 4 hours.

- 68. Someone calls you about a nestling owl. Its nest has been destroyed. You should:
 - a. call someone else in the licensed wildlife rehabilitators' network and make sure that the bird is picked up promptly and transported to a federally licensed wildlife rehabilitator
 - b. tell him to feed it hamburger until he can get it to you
 - c. tell him to leave the owl on the ground near the nest, the adults will care for it
 - d. have him drop it off at the local animal shelter

Answer: a. First determine if the owl is a nestling or brancher. It is not appropriate to leave a nestling very long without the care it needs. If you can't help, other federally licensed wildlife rehabilitators will be glad to come to your assistance. If it is a nestling owl left on the ground, almost certainly the nestling owl will be eaten by a larger predator. It is critical to know the difference between a nestling and a branching owl. See the Study Guide glossary for definitions.

69. True or False. If you find a fawn lying very still in the grass and it does not move when you approach, the fawn is in trouble and needs to be rescued.

Answer: False. The licensed wildlife rehabilitator has to ask questions in order to assess whether the fawn needs rescuing. If the fawn is vocalizing continually, has flies and bees buzzing around it or is lying on its side with its legs stretched out, these all indicate symptoms of trouble and points to the fact that the fawn should be rescued by a licensed wildlife rehabilitator.

- 70. Advising the public to confine a recently injured or orphaned animal in an appropriate container like a darkened but ventilated cardboard box for transport to a licensed wildlife rehabilitator:
 - a. may reduce stress
 - b. will keep the animal safe from other predators
 - c. keep it from escaping during transport
 - d. all of the above

Answer: d. Appropriate containers can reduce stress and should be kept dark, warm and quiet during transportation. Symptoms of stress can be subtle. Noise, excessive handling or incorrect grouping of individuals in captivity can all cause stress. The various stresses of captivity can lead to a state of shock or even death. Assuming that the animal does not need emergency treatment, allowing it to remain in a warm, dark and quiet container while you assemble your treatment supplies and reference books may significantly reduce its level of stress.

71. True or False. If a caller reports finding twin fawns 1-3 days old lying together and can approach them, there is probably something wrong.

Answer: True. To protect her young from predators, a doe will not keep them together. A doe will separate twin fawns, which serves to protect them, and places them 300-500 feet away from each other. The doe remains near the fawns returning to feed them, when it is safe to do so. Twin fawns typically do not see each other until they are 2-4 weeks old, when they begin to follow the female.

72. True or False. If a caller has handled a fawn, the doe will reject it and refuse to care for it.

Answer: False. A healthy fawn can usually be reunited with its mother within a few days. But, the sooner that the fawn is reunited with its mother, the better are its chances of being accepted.

73. True or False. A caller reports finding an injured Bobcat by the side of the road. It may need assistance.

Answer: True. Adult Bobcats do not often fall victim to other local predators. Collisions with cars tend to happen when these cats are hunting at night. Kittens are usually found after their mother has not come back to feed them. Out of hunger, they venture out of their den. If you find a lone kitten, you can assume it is an orphan and needs assistance.

74. If someone calls you with a baby raccoon, you should.

- a. give them the phone number of the local health department
- b. give them the phone number of a licensed RVS (Rabies Vector Species) rehabilitator
- c. both a and b
- d. tell them to keep it and raise it themselves

Answer: c. It is the responsibility of the licensed wildlife rehabilitator in New York State to get the address and phone number of the caller and to find out if there was any exposure. If there was exposure, tell the caller to contact their doctor and contact the local health department. If there was no exposure, give them the phone number of a Licensed RVS (Rabies Vector Species) wildlife rehabilitator. It is illegal and dangerous for a non-permitted individual to be in possession of Rabies Vector Species.

III. Taxonomy, identification, and natural history

Birds

Note: A federal license is required to rehabilitate most birds.

- 75. Which of the following is not an accipiter type of hawk?
 - a. Goshawk
 - b. American Kestrel
 - c. Cooper's Hawk
 - d. Sharp-shinned Hawk

Answer: Accipiters are short-winged, long-tailed woodland hawks that eat mostly other birds. The American Kestrel is a member of the falcon family.

- 76. Which of the following is an anatomical structure found in a hawk, but not an owl?
 - a. retractable talons
 - b. a crop
 - c. a cloaca
 - d. an esophagus

Answer: b. The crop is an enlarged area of the esophagus (food tube) located just above where the neck joins the body. The purpose of the crop is for temporary storage of food.

- 77. A recently hatched bird that is naked, blind and is completely dependent on its parents is an example of:
 - a. a precocial bird
 - b. a fledgling bird
 - c. an altricial bird
 - d. a brancher

Answer: c. It's important for a licensed wildlife rehabilitator to learn the terms precocial, fledgling, altricial and brancher. The question describes an altricial bird, such as a robin, which is hatched naked, blind and is totally dependent on its parents.

78. A recently hatched bird that has feathers and can follow its parents shortly after hatching is an example of:

- a. a precocial bird
- b. a fledgling bird
- c. an altricial bird
- d. a brancher

Answer: a. It's important for a licensed wildlife rehabilitator to learn the terms precocial, fledgling, altricial and brancher. The question describes a precocial bird which is hatched feathered and follows its parents shortly after hatching.

- 79. What are the most important means of defense for a raptor?
 - a. beak and wings
 - b. feet and beak
 - c. wings and feet
 - d. submissive behaviors

Answer: b. The feet and beak are used to grab and tear prey and can also harm the handler.

- 80. Which of the following groups of birds feed on the wing (in flight) on insects?
 - a. woodpeckers and flickers
 - b. robins and wood thrushes
 - c. swifts and swallows
 - d. egrets and ibises

Answer: c. Swifts and swallows are examples of birds that feed on the wing. It is important for the federally licensed wildlife rehabilitator, when raising these birds, to understand the feeding behavior of the species.

- 81. Which of the following birds migrate each fall?
 - a. eastern bluebird and the common crow
 - b. eastern bluebird, mallard duck and the common nighthawk
 - c. c eastern bluebird and the great horned owl
 - d. all of the above

Answer: b. All the birds listed above are considered migratory birds, however, not all travel long distances.

- 82. Fledgling refers to a bird that:
 - a. is still in the egg
 - b. eyes closed, un-feathered
 - c. is out of the nest and able to flutter short distances
 - d. has full flight abilities

Answer: c. A fledgling is found out of its nest, can hop about and flutter short distances, but does not have full flight capabilities.

83. You have just received a very young bird. Which factor would probably not help you identify it:

- a. type of feet
- b. length of tail feathers
- c. mouth color
- d. shape of beak

Answer: b. The length of the tail feathers will help you gauge the age of the bird. The type of feet, shape of beak and mouth color will help you distinguish among bird families (raptor, waterfowl, songbird, game bird).

84. True or False. A fledgling is a feathered juvenile bird, out of the nest, but is inexperienced as a flyer and forager.

Answer: True. A fledgling is out and about but still dependent on its parents for food and protection.

- 85. Raptor is another term used for:
 - a. songbird
 - b. seabird
 - c. bird of prey
 - d. perching bird

Answer: c. Raptor is the term used for a bird of prey because of its predatory habits. This term describes their predatory lifestyle.

Mammals

- 86. Which of the following is a carnivore?
 - a. raccoon
 - b. deer
 - c. opossum
 - d. long-tailed weasel

Answer: d. Carnivores are animals whose diets consist mostly of other animals. Such species might include all snakes, hawks and owls, bobcats and mink. Subcategories of carnivore include piscivores: species which eat mostly fish (loons, herons and dolphins), and insectivores: species which eat mostly insects (native bats and many songbirds).

87. Chipmunks:

- a. are mainly herbivores
- b. live in large colonies like prairie dogs
- c. have three litters annually
- d. make extensive runways under the snow

Answer: a. Chipmunks, though mainly herbivores, also prey on birds' nests and also eat seeds and nuts. Deer are herbivores which eat mostly plants. Other herbivores

include all native rodents (e.g. muskrat, beaver, mice, squirrels) and birds like grouse and quail.

- 88. Which of the following is an omnivore?
 - a. opossum
 - b. white-tailed deer
 - c. woodchuck
 - d. bobcat

Answer: a. The white-tailed deer and woodchucks are herbivores. Many species are omnivores: they eat many different things depending on seasonal availability. The raccoon and opossum are classic omnivores (as are people), but so are American robins, bears and skunks.

- 89. Which of the following is/are herbivore(s)?
 - a. big brown bat
 - b. striped skunk
 - c. woodchuck
 - d. all of the above

Answer: c. Woodchuck's are herbivores and are related to the squirrel family. They eat dandelion greens, alfalfa, rodent pellets, apples, fresh vegetables and greens found in open fields. Deer are also herbivores, which eat mostly plants. Other herbivores include all native rodents (e.g. muskrat, beaver, mice, squirrels) and birds like grouse and quail.

90. True or False. Raccoons, skunks and opossums are omnivores, meaning they have highly specialized diets.

Answer: False. Yes they are omnivores but they do not have highly specialized diets.

- 91. In mammals, what type of feeding group has sharp canine teeth and can eat both meat and plants?
 - a. carnivores
 - b. omnivores
 - c. herbivores
 - d. insectivores

Answer: b. Mammals eat many different things depending on seasonal availability. The raccoon and opossum are classic omnivores (as are people), but so are American robins, bears and skunks. Omnivores still have their canine teeth which are used to strike and attack prey, not to kill and tear meat from their prey.

92. Which mammalian group has molar teeth for grinding but no sharp canines?

- a. insectivores
- b. carnivores
- c. omnivores
- d. herbivores

Answer: d. Herbivores eat mostly plants and have flat teeth to grind the plant material.

93. True or False. Newborn cottontail rabbits are blind, completely dependent on their parents, and devoid of fur.

Answer: True. Like most mammals cottontails are born without much fur, blind and totally dependent on their parents.

94. True or False. Newborn Snowshoe Hares have their eyes open, are fully furred and able to run or hop within one or two days.

Answer: True. These types of mammals live in the northern part of New York State. The mother can have 3 to 4 litters a year producing 2 to 5 babies in each litter. The young are born with full fur coats, able to see right away and can run or hop within minutes of birth. They nurse one to two times a day and return to Mom twice a day for 28 days.

- 95. Young cottontail rabbits are fully weaned at approximately what age?
 - a. 2 weeks
 - b. 4 weeks
 - c. 6 weeks
 - d. 8 weeks

Answer: b. Although they are still small they are weaned and independent at 4 weeks of age and do not need a licensed wildlife rehabilitator's assistance unless injured or orphaned.

96. True or False. Mother cottontail rabbits remain on their nests with their young most of the day, only leaving long enough to eat.

Answer: False. Mother cottontails leave the nest, covered and hidden, during the daylight hours and only return to feed the infants at dawn and dusk.

- 97. When frightened or under attack, cottontail rabbits might:
 - a. emit a loud, piercing scream
 - b. play dead
 - c. pretend to have a broken leg
 - d all of the above

Answer: a. One of the defense mechanisms of a cottontail rabbit is to let out a piercing scream.

98. Which of the following mammals is not a rodent?

- a. beaver
- b. deer mouse
- c. cottontail rabbit
- d. flying squirrel

Answer: c. Although similar in many ways, rabbits are not rodents. They are called lagomorphs. Lagomorphs include rabbits, hares, and pikas. They superficially resemble rodents. They have a pair of "continuously growing" incisor teeth at the front of the mouth (like rodents) plus an additional pair of chisel-shaped teeth outside the incisors.

- 99. Which of the following statements about opossums is false?
 - a. usually live for over eight years in the wild
 - b. the newborn are blind and the size of honey bees
 - c. the young begin to leave the pouch and explore at 8 weeks
 - d. adults are omnivorous

Answer: a. In the wild, opossums live only 1-3 years. Since they are marsupials, the young are very tiny and undeveloped when born. They crawl into the mothers pouch, attached to a teat and remain for about 8-9 weeks. At this time they begin sticking their heads out and exploring. They are independent at about 12-13 weeks of age.

- 100. Flying squirrels are taught to "fly" by their mothers at what age?
 - a 2 months
 - b. 3 months
 - c. 5 months
 - d. 8 months

Answer: a. Flying squirrels begin to glide at about 2 months of age. They do not truly fly. They use the skin flap that is between their wrists and their ankles to glide between tree branches.

- 101. At approximately what age do young opossums begin leaving the pouch?
 - a. 2 weeks
 - b. 4 weeks
 - c. $2\frac{1}{2}$ months
 - d. 6 months

Answer: c. They are independent at 12-13 weeks. Young opossums leave their mother's pouch around 2 to 2½ months and will begin riding on the backs of their mothers.

102. True or False. Opossums are primarily nocturnal mammals.

Answer: True. Opossums rest during the day and are active during the night.

103. True or False. Opossums are North America's only marsupial.

Answer: True. The opossum is America's only pouched animal

104. True or False. A female opossum can have over seven (7) babies at a time.

Answer: True. The opossum can have up to 13 babies, but only as many as nipples because they attach to a nipple and stay there as they continue to grow.

- 105. At approximately what age are grey squirrels fully weaned in the wild?
 - a. 4-5 weeks
 - b. 8-9 weeks
 - c. 12-16 weeks
 - d. 17-20 weeks

Answer: c. A mother squirrel will nurse her young in the wild until the squirrel is 3-4 months of age.

- 106. At approximately what age are grey squirrel's eyes open?
 - a. 2 weeks
 - b 3 weeks
 - c. 5 weeks
 - d. 7 weeks

Answer: c. By 5 weeks of age, their eyes open, their vision clears and the squirrels are more affected by visual disturbances.

107. True or False. Newborn grey squirrels are naked and blind at birth.

Answer: True. Baby squirrels are born pink and hairless. By the end of their first week they may begin to gray on the head and tail. Their eyes are not open until they are 5 weeks of age.

108. True or False. Red foxes are found statewide and are common in suburban areas.

Answer: True. Red foxes are seen statewide and are adaptable and commonly seen in both rural and suburban areas.

- 109. At approximately what age are White-tailed deer fawns fully weaned?
 - a. 1 month
 - b. 2 months
 - c. 4 months
 - d. 6 months

Answer: c. White-tailed deer fawns are fully weaned at 4 months, and before their spots fade away, but they will continue to stay with their mother until the following spring.

110. Porcupines have:

- a. quills that can be "thrown" by the porcupine with a vigorous shake of its tail
- b. poisonous quills
- c. good eyesight
- d. barbed quills that can work themselves deeper into an attacking animal causing serious injury

Answer: d. Porcupines have poor vision but have a good sense of smell. Their barbed quills cannot be thrown and are not poisonous. However, they can move their tail very rapidly to swat an attacker and it is important to remove the quills correctly.

- 111. Which of the following animals hibernate normally during the winter?
 - a. opossum
 - b. red squirrel
 - c. woodchuck
 - d. raccoon
 - Answer: c. Woodchucks are true hibernators. They hibernate during the winter and become active in late February and March. Hibernation is a state of inactivity and metabolic depression in animals, characterized by lower body temperature, slower breathing and a lower metabolic rate.
- 112. True or False. It is natural for some mammals to leave their young unattended for long periods of time, only returning to feed them.

Answer: True. Cottontail rabbits and white-tailed deer both exhibit this behavior.

113. True or False. Juvenile opossums can engage in cannibalism.

Answer: True. Juvenile opossums can become scrappy and aggressive towards littermates and often must be separated. Overcrowding and/or mixing litters once animals reach 200 grams in weight can cause cannibalism.

114. True or False. Bobcats hunt in packs to bring down prey.

Answer: False. Bobcats are solitary hunters and even though they are capable of hunting larger prey items like white-tailed deer, the majority of their diet is small mammals.

115. True or False. Bobcats are rare in New York.

Answer: False. The bobcat is the most common wildcat in the state. They are abundant in areas of suitable habitat but secretive and not often seen. They are roughly 10-25 lbs. and have brownish-gray fur with black spots that help them to blend into their surroundings and move unnoticed.

116. True or False. Bobcat kittens are born in late April or May.

Answer: True. On average, a litter consists of 2-4 kittens that are born with their eyes closed. At 10 days old, their eyes open. At 1 month old they may venture outside their den. They may stay with their mothers for up to a year.

117. True or False. A Canada lynx is the only wildcat with pointed black ear tufts in New York.

Answer: False. Bobcats and Lynx both have ear tufts. Bobcats are much more common. Lynx are rare and tend to be grayer in color and have larger feet. The Lynx has a black tipped short tail and the Bobcats tail is also short but has a white tip.

- 118. Which bears are native to New York?
 - a. polar bears
 - b. black bears
 - c. brown (Grizzly) bears
 - d. answers b and c

Answer: b. Black bears are the only bears native to the eastern portion of North America.

119. True or False. Black bears are always black in color.

Answer: False. Color may vary from individuals. Black bears may be brown and brown bears may be black.

120. True or False. Black bears are true hibernators.

Answer: False. They do not enter a true state of hibernation. They can become fully alert if disturbed in their den.

- 121. Which is a member of the mustelid family?
 - a. fisher
 - b. mink
 - c. long-tailed weasel
 - d. all of the above

Answer: d. The mustelid family is comprised of weasels, otters, fishers and pine martins.

122. True or False. Ermine is another name for Short-tailed weasels

Answer: True. This carnivore is a captive animal's worst nightmare. Weasels are capable of squeezing into small spaces, including cages. They can kill animals larger than themselves. They kill by biting the spine at the base of the skull. They can bite when handed so exercise extreme caution and use good gloves (even tiny babies will bite.)

123. True or False. Short-tailed weasels (Ermine) change colors with the seasons.

Answer: True. This animal in the summer is dark brown on its back and white on its underside with a black tip to its tail. In the winter they are all white with a black tip of their tail.

- 124. Fishers' diet consists of which of the following.
 - a. snow-shoe hare
 - b. porcupine
 - c. squirrels
 - d. all of the above

Answer: d. These are skilled, quick hunters that can climb very well. They have evolved the skill to hunt porcupines. They disorientate them and get access to the porcupine's underside, where there are no quills. Fishers are found in New York State's northern woodlands and are skilled quick hunters that are able to climb.

- 125. True or False. A newborn fawn has very little scent.
 - Answer: True. Initially, a fawn does not have a strong scent that attracts predators. However, the doe can recognize the scent of her young at any age.
- 126. True or False. If a baby beaver is found and appears healthy, you can either return it to where you think it came from or take it to where you know there is an existing beaver colony.
 - Answer: False. Beavers are extremely territorial and will generally attack any 'intruder' that wanders into their territory. Though gentle and tolerant with their own family members, they are intolerant and vicious to beavers outside of their family unit. If a kit is introduced into a foreign beaver colony, it will be attacked and most likely lose its life
- 127. True or False. Beaver kits stay with their family for the first 2-3 years of their lives.
 - Answer: True. Kits normally reach sexual maturity at two years old and then set out on their own to find a mate and establish their own territory. Kits who find themselves on their own at an earlier age due to the death of their parents, rarely survive. Kits will seek out the companionship of other beavers not knowing the danger they will face in foreign beaver territory.
- 128. True or False. Beavers eat a variety of water plants, tree bark, leaves, and fish.
 - Answer: False. Beavers do not eat fish. They are herbivores and need a mixed diet of grasses, aquatic plants, and tree bark. Though beavers will eat the bark of most species of trees, they prefer aspen and willow. The bark from these trees is the most easily digested and provides the most nutritional value. Grasses and aquatic plants are an important food source in the spring and summer. But in the fall, their dietary needs switch to woody vegetation. In the fall after the second hard frost, beavers begin harvesting trees and submerging the branches under water creating a winter food cache. It is critical that they harvest enough trees so they have enough food to get them through the long winter until the ice melts.

129. True or False. Young beavers are totally dependent on their parents to learn how to build a dam or construct a lodge.

Answer: False. Young beavers have instinctive capabilities and are driven to cut down trees and build lodges and dams. However, they do learn to improve their skills, gaining much building experience, by observing and mimicking their parents.

130. True or False. Beavers are a relatively easy species to rehabilitate and they do quite well in rehabilitation situations.

Answer: False. Beavers require constant access to clean water. Not only do they need to consume large amounts of water for their digestive system to function properly, they naturally urinate and defecate in it. Beavers that are not allowed access to water at all times, tend to hold their urine and feces which often results in urinary tract infections and/or constipation. Beavers only drink adequate amounts of water to maintain good health when they are able to float in the water. Providing a bowl of water is not sufficient to meet their intake needs.

131. True or False. Beavers do not randomly cut down trees. They utilize the trees in a variety of ways.

Answer: True. Beavers strip the bark from the branches for food. After the bark is removed, the branches then serve as building materials for their lodges or dams. Large branches, once stripped of the cambium, are shredded for bedding. In the wintertime, the bedding material is left in the lodge. As it composts, it releases heat which helps warm the lodge to an average temperature of 68 degrees F.

Reptiles and Amphibians

132. True or False. If eggs are removed from a road-killed turtle, there is no point in trying to hatch them since turtle eggs are infertile until they are laid.

Answer: False. Reptile eggs are fertilized inside the female before the shell begins to form. Once the shell is laid down, eggs are viable and can be incubated. Eggs can be harvested from an injured turtle for incubation, prior to euthanasia, if required.

133. True or False. Most snakes in New York State are poisonous.

Answer: False. There are only three (3) poisonous species found in the state: the copperhead, timber rattlesnake and massasauga.

134. True or False. The box turtle is a terrestrial turtle found in New York State.

Answer: True. Terrestrial turtles, like the box turtle, spend the majority of their life on the land.

135. True or False. The underside of a turtle's shell is called the plastron and the upper side is called the carapace.

Answer: True. The plastron is the flatter surfaced bottom shell. It is often concave on a male to assist in mating. Most turtles have a convex carapace. A memory trick from the NYSWRC: "The carapace is the part the car hits, the plastron is the part that stays plastered to the road."

136. True or False. All venomous snakes have vertical (elliptical) pupils, facial pits and triangular heads.

Answer: False. There are no easy ways to know if a snake is venomous. Use caution when dealing with unfamiliar snakes. Keep in mind that some people illegally possess poisonous exotic snakes. It is recommended that you learn to identify the species.

137. All snakes are:

- a. carnivores
- b. herbivores
- c. omnivores
- d. insectivores

Answer: a. Snakes are carnivores and only eat meat, fish, eggs, insects, etc.

- 138. Which of the following is the most common snake in New York State?
 - a. water snake
 - b. garter snake
 - c. rat snake
 - d eastern milk snake

Answer: b. Garter snakes are found throughout all of New York. They hibernate in groups during the winter and emit a foul smell when handled. They are harmless to humans.

139. True or False. The painted turtle is one of the most common turtles found in New York.

Answer: True. The painted turtle is a common aquatic turtle found in New York's slow moving fresh water ponds. It is usually seen basking on logs or rocks. It hibernates in the muddy pond bottom during the winter.

IV. Disinfectants and cleanliness

140. True or False. Chlorox bleach is a chlorine-based product and should not be used to clean cages.

Answer: False. Chlorox is an excellent cage disinfectant if used properly. It should be diluted 1 part Chlorox to 10 parts water and remixed every 24 hours. Careful, Chlorox should never be mixed with any other cleaning product.

141. True or False. Daily removal of feces and urine from cages is necessary to prevent odor.

Answer: True. Daily cleaning not only prevents odor, but also prevents parasite infestation, insect overpopulation and disease transmission.

142. True or False. It is not necessary to disinfect substrate and furnishings from a cage in between housing different patients.

Answer: False. In between housing different patients, cages and their furnishings must be completely emptied and cleaned. All bedding material including cloth, substrate and furnishings, and plant material must either be washed or gathered freshly. Bedding cannot be re-used without a thorough disinfecting, because it may contain parasites or other contagious organisms left behind by the previous resident.

- 143. One of the best ways to prevent the possibility of transmission of diseases from wildlife to people or domestic animals is to:
 - a. use high doses of antibiotics
 - b. keep the animals outdoors at all times
 - c. use good hygiene for both oneself and the animals
 - d. clean the cages bi-weekly

Answer: c. Wildlife patients should not ever be in contact with domestic animals. The most effective way to prevent most disease transmissions is to constantly wash your hands. Be sure to wear disposable gloves when handling animals or cleaning cages.

- 144. Bactericidal products are a disinfectant, antiseptic, or antibiotic that:
 - a. kills both bacteria and viral agents
 - b. promotes both the growth of bacteria and viral agents
 - c. promotes the growth of bacteria
 - d. kills bacterial agents

Answer: d. Bactericidal products kill and destroy bacteria but not viruses.

145. Bacteriostatic products are a chemical substance that:

- a. limits or prevents the growth of bacteria
- b. enhances the growth of bacteria
- c. limits the growth of bacteria, but will kill a viral agent
- d. both a & c

Answer: a. Bacteriostatic products are chemical or antibiotics that limit the growth of bacteria.

- 146. Virucidal products are a disinfectant, chemical, or substance product that:
 - a. kills both bacteria and viral agents
 - b. inhibits the growth of both bacteria and viral agents
 - c. kills or inhibits the growth of bacteria
 - d. kills viral agents

Answer: d. Virucidal products are capable of destroying or inactivating viruses.

- 147. The best disinfectant product that should be used to perform general cage cleaning is one that has:
 - a. bacteriostatic properties
 - b. has both bacteriostatic and virucidal properties
 - c. has bactericidal, bacteriostatic and virucidal properties
 - d. none of the above is recommended for general cage cleaning

Answer: c. A bacteriostatic prevents the growth while a bactericidal or virucidal agent kills, so a cleaning product that contains all three is a superior product to use.

- 148. The best disinfectant to use to prevent disease transmission is a product that has:
 - a. bacteriostatic properties
 - b. has both bacteriostatic and virucidal properties
 - c. has bactericidal, bacteriostatic and virucidal properties
 - d. none of the above is recommended for disease prevention

Answer: c. A bacteriostatic prevents the growth while a bactericidal or virucidal agent kills, so a disinfectant product that contains all three is a superior product to use.

V. Diseases

149. True or False. A zoonotic disease is the name of a disease that is transmissible from animals to people and/or people to animals.

Answer: True. Because there are diseases that can pass between people and animals, licensed wildlife rehabilitators must be extremely careful when working with wildlife patients. Examples of zoonotic diseases are rabies, Lyme disease, tuberculosis and brucellosis.

- 150. Which of the following is a zoonotic virus capable of causing disease in all mammals, including humans, and is transmitted usually through contact with an infected animal's saliva or blood?
 - a. aspergillosis
 - b. ornithosis
 - c. rabies
 - d. distemper

Answer: c. Rabies is a potentially fatal zoonotic viral disease found in warm blooded mammals. A licensed wildlife rehabilitator should take preventative measures by being treated with pre-exposure vaccinations.

151. True or False. Rabies is caused by a virus.

Answer: True. Rabies is caused by the Rhabdoviridae family virus. It attacks the nervous system and is fatal if it reaches the brain. If someone is bitten by a rabid animal they must seek immediate treatment to prevent death.

152. True or False. All native mammals can transmit rabies.

Answer: True. One should use caution and report all bites to the local Health Dept.

153. True or False. Birds cannot contract rabies.

Answer: True. Rabies has not been found in birds. Rabies only affects mammals.

- 154. Which of the following is not a high risk species for rabies?
 - a. skunk
 - b. rabbit
 - c. raccoon
 - d. bats

Answer: b. Rabbits and rodents rarely contract rabies. But remember, they can contract the disease from other rabid animals, so you must still be careful and report all bites to your local Health Dept.

155. If a licensed wildlife rehabilitator is bitten by a mammal, he or she should?

- a. wash the wound well with soap and water
- b. call the Health Department
- c. see a physician immediately
- d. all of the above

Answer: d. Always wash such wounds carefully with soap and water. All bites are reportable to the local Health Department to see if they want the animal tested for rabies. It is advisable to contact your physician to determine if antibiotics or rabies treatment is necessary.

156. True or False. *Baylisascaris procyonis* (raccoon roundworm) is not transmissible to humans.

Answer: False. This is a harmful zoonotic disease which can cause brain and eye problems, even death.

- 157. If you are bitten by a wild mammal you are caring for, which of the following should you do?
 - a. wash the wound and contact the local health department
 - b. wash the wound out well and forget about it
 - c. wash the wound, quarantine the animal for two weeks
 - d. release the animal as soon as possible

Answer: a. With the real threat of rabies, it pays to be cautious. Always wash all wounds carefully with soap and water, even though this will not prevent rabies it can help with transmission of other diseases. All bites are reportable to the local Health Department to see if they want the animal tested. If requested, follow the Health Department procedures to have the animal euthanized, submit it for rabies examination (refrigerate the carcass, do not freeze.) While awaiting results, notify your family physician. Since some wildlife species may incubate rabies for long periods, quarantine is not an option.

158. True or False. Quarantining wild animals for a ten (10) day period is sufficient for detecting rabies infection.

Answer: False. The Incubation period for the rabies virus is extremely variable. Clinical signs appear in the majority of cases within 15 to 25 days but, occasionally, the incubation period may be delayed for a much longer period of time. If people or domestic animals have been exposed either by being bitten or scratched, no quarantine is sufficient; the wild animal should be euthanized and examined for rabies. The brain tissue will be tested. Pre-exposure rabies vaccines are required to care for RVS (Rabies Vector Species), and if one is bitten by a rabid animal, post-exposure vaccinations are available. It is advisable for any licensed wildlife rehabilitator to receive the rabies pre-exposure vaccinations.

159. Which of the following is not a zoonotic disease (a disease or parasite that can cause illness to a person handling wildlife)?

- a. leptrospirosis
- b. distemper
- c. raccoon roundworm (baylisascaris)
- d. rabies

Answer: b. Distemper is a viral disease, which can cause disease in many mammals, but does not cause disease in humans. Eggs (ova) of the raccoon roundworm can be ingested by people or other mammals and can cause serious or fatal disease. Rabies is a virus capable of causing fatal disease in all mammals, including humans. West Nile virus, Hantavirus, Lyme Disease, and many parasites (mange, baylisascaris, etc.) are all examples of zoonotic diseases.

- 160. Humans may become infected with raccoon roundworms by:
 - a. eating undercooked raccoon meat
 - b. swallowing something contaminated with roundworm eggs
 - c. coming into contact with the blood of a raccoon killed on the highway
 - d. being bitten by a raccoon showing nasal discharge, weeping eyes and matted greasy fur

Answer: b. Objects near where the raccoon has defecated may contain parasite eggs, (e.g. bark, grass, soil, bedding, etc.) and may become contaminated easily. A blowtorch is the only means to kill the eggs. When considering public education, this is an opportunity to explain why gardeners should wear gloves and wash hands carefully after digging in the soil. It also serves as a way to convince the public not to handle raccoons.

- 161. In species other than raccoons, which of the following symptoms can be caused by *Baylisascaris procyonis* (raccoon roundworm):
 - a. central nervous system abnormalities
 - b. blindness
 - c. death
 - d. all of the above

Answer: d. This is another reason why only rabies vector licensed wildlife rehabilitators may handle raccoons. Once a member of the public hears what could happen, they will often voluntarily give up the animal to the proper authorities. Try to explain that raccoons are safe if left in the wild, just should not be in contact with humans.

- 162. A widespread bacterial zoonotic disease of birds, mammals and reptiles, which has fecal/oral transmission, and is commonly found in wild animals is:
 - a. salmonella
 - b. distemper
 - c. chlamydiosis
 - d. rabies

Answer: a. Salmonella infection occurs commonly in birds, mammals, reptiles and humans. Transmission is primarily through the ingestion of fecal material from an infected animal. The infection may not manifest itself with clinical signs. The

animal may have a latent infection, harboring the pathogen in its lymph nodes, later shedding the organism in its stool intermittently. In all species, clinical signs include; abdominal pain, and vomiting and diarrhea. Prevention of the spread of this disease depends primarily on good hygiene. Washing your hands as well as wearing gloves before and after handling any animal is important.

- 163. Salmonella, a bacterial infection, is transmitted easily from:
 - a. mammals to mammals
 - b. birds to birds
 - c. birds to humans
 - d all of the above
 - Answer: d. Salmonella is a gram negative bacterial infection which occurs commonly in birds, mammals, reptiles and humans. Transmission is primarily through the ingestion of fecal material from an infected animal. The infection may not manifest itself with clinical signs. The animal may have a latent infection, harboring the pathogen in its lymph nodes, later shedding the organism in its stool intermittently. In all species, clinical signs include; abdominal pain, and vomiting and diarrhea. Prevention of the spread of this disease depends primarily on good hygiene. Washing your hands as well as wearing gloves before and after handling any animal is important.
- 164. Surfaces with which reptiles come in contact should be cleaned in order to prevent exposure to:
 - a. influenza
 - b. distemper
 - c. salmonella
 - d. all of the above

Answer: c. Both reptiles and amphibians can carry salmonella and according to the Centers for Disease Control and Prevention (CDC), "anything that reptiles and amphibians touch should be considered possibly contaminated with salmonella." This includes all cage surfaces and soaking tubs/basins, cleaning implements and cage furniture. Surfaces should be thoroughly cleaned and disinfected with a 10% bleach solution to prevent spread of salmonella between animals and from animals to people. Avoid exposing animals to fumes or actual bleach solution by rinsing and allowing surfaces to dry before using.

165. True or False. Although it is a good rule of thumb to wash ones hands after handling animals, it is especially important when handling reptiles, so as to avoid contracting salmonella.

Answer: True. Reptiles frequently carry salmonella and should be handled accordingly.

166. True or False. If a reptile appears healthy, salmonella should not be of concern.

Answer: False. Because of the frequency with which reptiles carry salmonella, one should always assume that exposure is likely when handling them. Reptiles can shed salmonella in their feces without appearing to be ill themselves.

- 167. Which is a zoonotic fungal disease which is transmitted through the inhalation of spores?
 - a. chlamydiosis
 - b. aspergillosis
 - c. distemper
 - d. scabies

Answer: b. Aspergillus is a fungus that can survive in a variety of different environmental conditions. An important source of infection is fungus-contaminated bedding, which is why straw is not used for raptor bedding. Aspergillosis in birds is typically a chronic disease with variable signs including respiratory distress. People with already weakened immune systems or who suffer other lung conditions are more susceptible to infection. Protective masks and gloves should be worn when performing necropsies.

- 168. While handling an adult opossum, you receive a bite to your palm. There are several diseases that you may contract from this type of injury. Because of your exposure to wild species and your increased risk for injury, it is recommended that licensed wildlife rehabilitators be vaccinated against:
 - a. rabies and tetanus
 - b. rabies and distemper
 - c. rabies and salmonella
 - d. tetanus and distemper

Answer: a. Rabies is a viral disease, which usually results in the death of the infected individual or animal. Transmission occurs through the contamination of a wound, or break in the skin, with the virus-laden saliva of an infected animal. Preexposure immunization is recommended to high-risk individuals such as veterinarians and licensed wildlife rehabilitators. Avoiding contact with high risk animals also prevents exposure. Any injury, including animal bites, can result in tetanus. Tetanus is caused by anaerobic bacteria. This organism is found in soil, human and animal feces. The portal of entry is through a wound contaminated with soil or feces. In people, the disease is characterized by stiffness and pain contractions in muscles of the jaw and neck. All wounds should be cleaned and debrided thoroughly and the licensed wildlife rehabilitator's vaccination for tetanus toxoid should be current

169. A young fox is found and is easily captured. Upon examination it is revealed that the fox has an unusually domed skull and its eyes are protruding. The pup is having seizures and seems unable to locate food placed under its nose. Based on these symptoms, what un-treatable condition might it have?

- a. sarcoptic mange
- b. pneumonia
- c. hydrocephalus
- d. parvovirus

Answer: c. hydrocephalus. This untreatable condition is congenital and is characterized by a domed skull and protruding eyes because of the cerebrospinal fluid that is unable to drain from the skull cavity. It is fairly common in foxes and small dogs such as Boston Terriers and Chihuahuas. For foxes, the only humane thing to do is euthanasia.

- 170. An adult Eastern Coyote is brought in that is missing a lot of fur and has sores all over its body. It smells really bad. Which of the following treatable conditions might it have that would cause these symptoms?
 - a. Sarcoptic mange
 - b. Rabies
 - c. Distemper
 - d. Newcastle disease

Answer: a. Sarcoptic mange will cause the loss of fur but is treatable.

- 171. Which of the following might you be able to catch from a sick Red fox or Coyote?
 - a. rabies
 - b. sarcoptic mange
 - c. ringworm
 - d all of the above

Answer: d. All of these conditions are able to be passed to humans. It is important to avoid being bitten, to wear gloves and to wash hands and clothing thoroughly after handling the animals.

- 172. True or False. Licensed wildlife rehabilitators handling mammals should have pre-exposure immunization against rabies.
 - Answer: True. Rabies is a viral disease, which usually results in the death of the infected individuals. Transmission occurs through the contamination of a wound, or break in the skin, with the virus-laden saliva of an infected animal. Pre-exposure immunization is recommended to high-risk individuals such as veterinarians and licensed wildlife rehabilitators. Avoiding contact with high risk animals also prevents exposure.
- 173. An epizootic disease is:

- a. one which attacks a large number of animals simultaneously, similar to an epidemic in humans
- b. transmissible from animals to humans
- c. only contagious among birds
- d. a problem which is extremely rare in the United States

Answer: a. An epizootic disease is an outbreak of disease affecting many animals of one kind or species at the same time.

- 174. You observe a grey fox wandering aimlessly. You notice convulsive movements of the head and discharge from the nose and eyes. The fox most likely has contracted:
 - a. distemper
 - b. sarcoptic mange
 - c. trichomoniasis
 - d. leptospirosis

Answer: a. Canine distemper is a contagious, viral disease with no known cure. The major symptoms include high fever, reddening of the eyes and a watery discharge from the nose and eyes. Animals become lethargic, tired, and exhibit vomiting, diarrhea, coughing and convulsions. In the latter stages of the disease, it attacks the Central Nervous System and animals suffer seizures, paralysis and death. Distemper is a highly contagious disease and almost always fatal. Euthanasia is a more humane solution. You also need to be cautious and suspect the disease of Rabies as another possibility.

- 175. Which of the following statements about distemper in wildlife is false?
 - a. the symptoms often resemble those of rabies
 - b. raccoons, grey foxes and skunks are all commonly affected
 - c. the symptoms often include a runny nose and eyes, disorientation and lack of fear
 - d. a wild animal found with distemper, walking in circles in someone's yard can be saved if taken to a cooperating veterinarian right away

Answer: d. Distemper is a highly contagious disease and almost always fatal, therefore, euthanasia is a more humane solution. Be very cautious bringing an animal with this disease into your facility.

- 176. Humans can contract the hantavirus through infected rodents by:
 - a. euthanizing it
 - b. touching it
 - c. having contact with its blood
 - d. inhaling dust from its droppings

Answer: d. Hantavirus is an aerosolized virus contracted from breathing in dust from infected rodent droppings, urine or saliva.

177. True or False. All birds can carry Avian Influenza.

Answer: True. Poultry is most susceptible to Avian Influenza. Free-range waterfowl have also been infected but rarely show signs of the disease. Contact the Center for Disease Control (CDC) 800-232-4636, or CDCinfo@cdc.gov

178. The main carrier of the Hantavirus in New York State is:

- a. grey squirrel
- b. deer mice
- c. Norway rats
- d. beavers

Answer: b. This deadly virus appears to be carried by specific hosts such as the deer mouse and white-footed mouse. These are the only known rodents to carry this disease in the North East. Hantavirus is an aerosolized virus contracted from breathing in dust from infected rodent droppings, urine or saliva.

- 179. You begin to examine an adult mallard duck which appears to be paralyzed. It is unable to use its wings for flight and has difficulty moving its legs. The nictitating membranes cover both eyes and appear swollen and inflamed. A disease which may cause these signs and is sometimes seen in waterfowl due to the ingestion of a bacterial toxin, is:
 - a. tetanus
 - b. botulism
 - c. aspergillosis
 - d. chlamydiosis

Answer: b. Avian botulism is a disease caused by Clostridium botulinum, which is an anaerobic bacteria (can live without oxygen) whose toxin produces an often fatal progressive paralysis. Botulism can affect shorebirds, waterfowl, herons and pheasants in the wild. The disease often begins with paralysis of the wings, followed by paralysis of the legs. The nictitating membrane may become paralyzed. Finally, paralysis spreads to the neck causing the typical 'limber-neck' symptom, and respiratory failure can follow. In Botulism type C, bacteria are found commonly in soil and thrive in a warm anaerobic environment, such as shallow water heated by the sun. Type E Botulism is found in the Great Lakes and causes illness in fish eating birds. Symptoms can develop within hours after the toxin is ingested. The bird should be seen by a cooperating veterinarian for proper diagnosis. It is important to treat the victims as early as possible. Birds presented in an early stage of paralysis have been treated successfully by repeated gavage with electrolyte solutions to flush the system of both the toxin and the bacteria.

180. True or False. The term Avian Influenza refers to collection of virus strains, not all of which cause disease in people.

Answer: True. There are at least 16 different "H" types of Avian Flu (H1-H16) and 9 different N types (N1-N9). They are further divided into low and high pathogenicity.

181. True or False. Botulism, also known as limber-neck, is a disease caused by the bacterium Clostridium botulinum.

Answer: True. Animals living near contaminated bodies of water can get the Botulism toxin by ingesting the spores of Clostridium botulinum. The toxin prevents signals from the brain from reaching the muscles.

182. Ringworm is a:

- a. bacterial infection
- b. protozoal infection
- c. fungal infection
- d. viral infection

Answer: c: Although it is most commonly seen in squirrels, all mammals are susceptible to Ringworm. It is called Ringworm because of the round lesion it creates, however it has nothing to do with worms or parasites. Use caution as this fungus is highly contagious, but treatable.

183. Leptospirosis is a:

- a. bacterial infection
- b. protozoal infection
- c. fungal infection
- d. viral infection

Answer: a. Leptospirosis bacteria are spread through the urine of rodents and other infected mammals. The infection can be acquired by consuming contaminated food or water. It can also infect humans through poor hygiene.

- 184. The following are caused by direct skin to skin contact:
 - a. sarcoptic mange
 - b. West Nile Virus
 - c. ringworm
 - d both a and c

Answer: d. Sarcoptic Mange and Ringworm can be contracted by direct skin to skin contact and infected bedding. Both diseases can be transmitted to the licensed wildlife rehabilitator through direct body contact, so it is important to wear gloves. Sarcoptic Mange mites spread to new hosts by direct body contact or by transfer from common nests, burrows, dens or bedding. Good hygiene is necessary when handling infected animals.

185 Salmonellosis is a:

- a. bacterial infection
- b. protozoal infection
- c. fungal infection
- d. viral infection

Answer: a. Salmonellosis is a bacterial infection often referred to as food poisoning. Although it is not contagious, both the animal patient and the licensed wildlife rehabilitator can be infected. This bacterial infection causes diarrhea, vomiting and stomach cramps 12 to 72 hours after infection. Animals become infected through the fecal-oral route.

186. True or False. Wildlife cases should always be treated for intestinal parasites on presentation.

Answer: False. many wild animals will have some intestinal parasites, particularly adults. Fecal exams should be performed to evaluate the number and type of parasites. There are many species of nematodes (hookworms, whipworms and roundworms), cestodes (tapeworms), trematodes (flukes) and protozoa that can infect wildlife, and treatment must be tailored to the type of parasite present. It may not be necessary to treat for parasites unless the animal is heavily infected, severely stressed, or has a particular type of parasite known to be problematic. A veterinarian should be consulted before treating. Improper use of anthelmintic medications can cause side effects and the development of resistant strains of parasites.

187. Lyme disease is contracted via:

- a. airborne particulates
- b. deer ticks
- c. ingestion
- d. all of the above

Answer: b. Lyme disease is contracted from deer ticks. The infection causes a reddish rash, headache, fever and chills and later can produce arthritis, nervous system and cardiac disorders. The licensed wildlife rehabilitator needs to be concerned whenever walking through grass to pick up an animal. Lyme disease is an emerging infectious disease which is transmitted to humans by the bite of an infected Ixodes tick. The tick must be adhered for 24 hours to pass the bacteria.

188. Newcastle Disease virus is transmitted by:

- a. airborne particulates
- b. nasal secretions
- c. ingestion
- d. all of the above

Answer: d. Newcastle Disease is a contagious, epizootic, viral disease affecting most species of birds. It is transmitted mostly through inhalation and direct contact. Common symptoms in birds include respiratory distress, greenish watery diarrhea, muscle tremors, drooping of the wings and twisting of the head and

neck. Human beings, if infected, can experience mild conjunctivitis and influenza symptoms. It poses no other health hazard to humans.

189. True or False. Psittacosis can be acquired directly from inhaling the dust from dried bird droppings.

Answer: True. It is a zoonotic bacterial infection also known as "parrot fever" and can be found in parrots, pigeons, sparrows, ducks, gulls and many other birds. It is communicable to humans and marked by pneumonia and high fever. It is transmitted by ingesting or inhaling the droppings from an infected bird.

190. True or False. All incoming wildlife cases should be treated with antibiotics to ward off infection.

Answer: False. Antibiotics are only effective against bacterial disease and some types of parasites, but not viruses. Antibiotics can have side effects. Misuse of antibiotics can cause development of resistant bacteria. Oral antibiotics can destroy delicate gut microbes, leading to diarrhea. Some types of antibiotics can cause fatal enteritis in some species (oral penicillins and rabbits). Antibiotic treatment should be given only after careful examination of an animal's condition and consultation with a veterinarian

191. True or False. Rehydration for dehydrated opossum babies can be done with Lactated Ringers.

Answer: True. Lactated Ringers Solution is a standard re-hydration solution. It can be given orally or injected subcutaneously.

- 192. The Virginia Opossum, like many animals, is particularly prone to the following conditions in rehabilitation situations?
 - a. metabolic bone disease
 - b. obesity
 - c. dermal septic necrosis
 - d. all of the above

Answer: d. The Virginia Opossum, like many animals, is particularly prone to these conditions. The licensed wildlife rehabilitator must be careful to avoid inflicting these conditions on the animal

VI. Parasites and fecal analysis

193. True or False. If the feces (droppings) of a one month old mammal are examined for raccoon roundworm (Baylisascaris procyonis) the test will be negative if the animal is not a raccoon

Answer: True. The roundworm can't complete its lifecycle outside of the raccoon. Only raccoons will have the eggs in their feces. It is common that raccoons carry the roundworms.

194. True or False. Food and water dishes, cages and other objects used for each animal should be properly disinfected before using for other mammals and birds to help prevent the spread of parasites and disease.

Answer: True. Always clean and disinfect food dishes, cages and bedding regularly, especially before use with a different animal. Practice good personal hygiene and use gloves when handling animals and while cleaning. Any RVS (Rabies Vector Species) equipment should be kept separate even after cleaning and only used with RVS (Rabies Vector Species).

195. Raccoon roundworm eggs deposited outdoors may remain alive up to:

- a. one month
- b. six months
- c. one year
- d. ten years

Answer: d. This is why any enclosure must not be used to house raccoons contaminated with Raccoon roundworm eggs and raccoon enclosures must not be used to house any other species. Only RVS (Rabies Vector Species) licensed wildlife rehabilitators may house raccoons. Baylisascaris procyonis is the common roundworm parasite of raccoons. This parasite is contracted through oral-fecal transmission and usually causes few problems in the raccoon itself. The ova excreted in the feces of infected raccoons can live for a very long time in the environment. When ingested by other mammals, birds or humans, the larvae that hatch have an affinity for the central nervous system. The resultant central nervous system disease is frequently fatal. Because of the high incidence of Baylisascaris infection in raccoons and the movement of raccoons into suburbs and cities, the potential for human infection is high. People and their pets can become infected by accidentally ingesting infective eggs from raccoon feces, contaminated soil or water, or via contaminated hands. Diagnosis of Baylisascaris in raccoons is achieved by fecal examination or by finding adult worms in feces or vomitus

196. Which of the following can be used to kill the eggs of the raccoon roundworm on surfaces, caging or substrates?

- a. a blow torch
- b. iodine solutions
- c. Chlorox
- d. detergent and hot water

Answer: a. Raccoon roundworm eggs are very resistant to degradation and can remain infective for years. Scrubbing with soap and antiseptics may remove the eggs, but only flaming will kill them. Only RVS (Rabies Vector Species) licensed wildlife rehabilitators may house raccoons.

- 197. Bird feather lice (mallophagan lice):
 - a. do not bite or transmit diseases to people
 - b. bite and suck blood like mosquitoes
 - c. are sometimes carriers of Lyme disease
 - d. can jump like fleas

Answer: a. However, these bird lice (mallophagan lice) are thought to transmit several avian diseases.

- 198. You are caring for a young, red fox with diarrhea. You do a single fecal examination and find no evidence of parasite eggs in the stool sample. Which of the following statements is true?
 - a. The diarrhea definitely is not due to parasites.
 - b. The diarrhea is caused by a bacterial infection.
 - c. Repeated fecal samples may be necessary to rule out parasites as the cause of the diarrhea.
 - d The diarrhea is diet related

Answer: c. When looking for evidence of internal parasites, it is often necessary to examine several stool samples. Many parasites only shed eggs sporadically, so eggs may not be evident in every stool produced. One negative fecal does not completely rule out the possibility of internal parasites as the cause of a problem. Any animal infected with internal parasites may still have a single negative fecal. If parasites are suspected to be the cause of diarrhea, repeated fecal examinations over several days to weeks may be required.

199. True or False. Fecal flotation and sedimentation are two methods for collecting the eggs of internal parasites for identification.

Answer: True. The eggs of some parasites will float when suspended in a flotation solution, while others such as trematode (fluke) eggs are too heavy and may be found in the sediment of a prepared sample. Both methods require a microscope for proper identification.

200. True or False. Many parasite eggs can be detected in a stool sample by use of the methods of fecal flotation or sedimentation.

Answer: True. All fecal samples should be examined while fresh. Initially, the sample should be inspected visually for signs of tapeworm segments. Then, through the

use of fecal flotation or sedimentation the sample can be examined for other parasite eggs such as roundworms, hookworms and coccidia (small single-celled parasites). Either procedure is simple to learn. Because of the small size of the parasite eggs, use of a microscope is required to visualize them. The fecal flotation examination involves mixing the feces with a concentrated solution which will, by gravity, suspend the parasite eggs. The solution is heavier than the eggs, so the eggs will float to the top of the tube. A direct smear of feces is also a useful test for protozoa (single celled organisms) and trematode eggs. A fresh fecal sample is mixed with a drop of water on a microscope slide then examined under a microscope.

- 201. You have several baby opossums, which you have been hand-feeding. Two new ones are brought in to you and you notice large areas of hair loss and crusting on their stomachs and hind legs. You isolate the new babies and feed them. You should:
 - a. feed the two new babies first because they are hungriest then feed the others
 - b. put them all in the same cage, so you won't forget to feed any of them
 - c. feed the new babies last and use care when handling, because they may have a disease contagious to humans as well as to other opossums
 - d. euthanize the two new babies, because their skin condition indicates a more serious problem and they may die anyway
 - Answer: c. Isolation of any animal which may have a contagious disease is essential. There are several diseases with this collection of signs such as ringworm, sarcoptic mange and allergic skin disease. To differentiate between these conditions, it would be necessary to contact a cooperating veterinarian so several diagnostic tests could be performed.
- 202. True or False. If a fecal sample tested for internal parasites is negative, there is no reason to run another test a few weeks later.
 - Answer: False. Since parasite ova are shed in the stool sporadically, it is always a good idea to do several fecal samples when internal parasites are suspected.
- 203. True or False. Fecal samples are valuable for testing for the presence of internal parasites.
 - Answer: True. The eggs of most internal parasites can be detected by microscopic examination of a freshly prepared fecal sample.
- 204. True or False. Intestinal parasites are a common cause of diarrhea.
 - Answer: True. Intestinal parasites can irritate the gastrointestinal tract and cause diarrhea. They also can cause anemia and weight loss if left untreated.
- 205. True or False. Raptors usually get trichomoniasis by ingestion of contaminated food. The parasite is found often in pigeons and doves.
 - Answer: True. Trichomonads are protozoal parasites that infect the upper gastrointestinal tract of birds, especially doves. They can cause blockage of the esophagus and trachea. Raptors contract trichomoniasis when they ingest an infected bird.

206. True or False. Healthy animals normally have some ectoparasites (external) but large loads can eventually become life threatening.

Answer: True. It is not unusual for 'healthy' animals to be present with some ectoparasites, but large quantities are not good. Ectoparasites are external parasites and include fleas, ticks and mites. A large parasite load can cause hair loss, anemia and secondary bacterial infections.

207. Mange is caused by mites and is:

- a. best treated with an antibiotic
- b. best treated Ivermectin or a similar drug
- c. transferred readily among social mammals
- d. b and c

Answer: d. There are several species of skin-burrowing itch mites that cause mange. Sarcoptes scabiei and Notoedres centrifera are the two most common mange mites found in wildlife. Red foxes, coyotes and porcupines can be severely infested with sarcoptic mange, while notoedric mange is most common in squirrels. Demodex CANIS might also be found. Once a skin scrape is performed to identify the parasite, Ivermectin is the drug usually used by cooperating veterinarians for treatment.

VII. Husbandry of wild species

General Husbandry

208. True or False. Double-door entry into cages housing wild animals is an important safety feature.

Answer: True. It affords a view of the animal's location in the care and prevents their escape. Double doors are required for RVS (Rabies Vector Species) and federally governed species.

209. True or False. Fleece blankets or baby receiving blankets are a good choice for animal bedding. While terry cloth towels can be used for restraint and handling, they should not be kept with the animals as bedding.

Answer: True. In general, this is true. Such bedding is cheap, can be laundered and disinfected, and provides good insulation. However, one must be very careful not to use bedding with tough synthetic fibers or cloth that can become unraveled and tangled around the animal. No bedding material should have holes, tears, or loose threads. This may cause suffocation or loss of toes or limbs in animals.

- 210. Outdoor caging for wild animals should encompass the following:
 - a. access to sunlight and rain, as well as protection from the elements
 - b. adequate space for exercise
 - c. stimuli for eliciting natural behaviors
 - d. all of the above

Answer: d. Proper caging must meet all physical and psychological needs of captive animals

211. True or False. Attention to an animal's appearance and behavior is an important aspect of wildlife care.

Answer: True. It is important to observe body posture while an animal is resting in a cage. Observing its mobility and locomotion will help you evaluate the animal's condition. Soft tissue injuries often can be missed, and this is an opportunity to make observations for abnormalities.

- 212. Indoor caging for wildlife should encompass the following:
 - a. can be easily cleaned and sterilized
 - b. have adequate ventilation
 - c. contain a visual barrier to human activity
 - d. all of the above

Answer: d. Proper caging must meet all physical and psychological needs of captive animals.

213. True or False. Wild mammals and birds should be maintained away from the sights and sounds of human activity.

Answer: True. The licensed wildlife rehabilitator should have a designated wildlife area. It is equally important that animals should not be in view of each other, or other species.

214. True or False. When raising young animals it is important to minimize human contact and dependence.

Answer: True. Imprinting and taming is a major concern of wildlife rehabilitation, and it must be avoided. Socialization with other animals of similar species in age is critical to the proper development of the animal. It is highly recommended to network among other licensed wildlife rehabilitators to avoid raising one juvenile of a species alone.

215. True or False. Wild animals make good pets when hand-raised.

Answer: False. Under no circumstances are wild animals allowed to be kept as pets. The goal of the licensed wildlife rehabilitator is to release a behaviorally and physically healthy wild animal. Upon becoming sexually mature adults, most wild animals will become untrustworthy and may inflict serious injuries on humans and on domestic animals. New York State law dictates that under no circumstances are wild animals to be kept as pets.

216. True or False. There is no need to isolate young animals to avoid the spread of contagious disease.

Answer: False. Quarantine is an important procedure to implement when housing large numbers of animals. Any newly acquired animal, young or old, should be isolated from all others to prevent the spread of contagious diseases.

- 217. Handling of young mammals should be tapered off at what time?
 - a. when their eyes open
 - b. when they begin self-feeding
 - c. when they are placed in outside housing
 - d. just before they are released

Answer: b. In all wild species the less the animal is handled the better it will be. When there is no longer a need to assist in feeding, human contact should be minimal.

218. True or False. Young mammals need extra handling and attention when they are being raised by humans to help them feel secure.

Answer: False. Handling an animal more than needed, may imprint or tame animals and make them non-releasable. Excessive handling will also increase the stresses of captivity, delay healing and recovery.

219. Which of the following are likely to cause stress?

- a. overcrowding
- b. hunger
- c. stroking by a human
- d. all of the above

Answer: d. Stress may be caused by any unnatural visual, auditory or tactile activity. However natural sounds may be played for the animals to encourage development of "correct" communication patterns.

220. True or False. An adult or older juvenile can sometimes assist with proper socialization in younger animals of the same species and also encourage foraging behavior.

Answer: True. Animals learn from viewing one another's behaviors. Surrogates may be a good choice if available. It is advisable to consult with an experienced licensed wildlife rehabilitator regarding which species can be used as surrogates when animals are housed near one another or together. You also have to be concerned with diseases and cross-contamination.

221. True or False. Young birds should be raised with others of the same species (conspecifics) whenever possible for proper socialization.

Answer: True. Young birds should be raised with other healthy birds of the same species whenever possible for proper socialization. A federal permit is required to rehabilitate migratory birds.

- 222. The use of surrogate parents helps to reduce the risk of:
 - a. abnormal socialization
 - b. abnormal breeding activity
 - c. taming or imprinting
 - d. all of the above

Answer: d. Care is needed when mixing mammals of the same species, but different ages, as they may fight and injure themselves, (e.g. opossums.) Surrogates might need to be housed next to, but separate from, the youngster. It is advisable to consult an experienced licensed wildlife rehabilitator regarding which species can be used as surrogates when animals are housed near one another or together.

223. True or False. You have a litter of three young mammals in your care, when another young mammal of the same species is brought to you. You should make sure it is healthy or isolate it until it is seen by a cooperating veterinarian.

Answer: True. A licensed wildlife rehabilitator is balancing many factors such as the potential spread of disease versus the mental health of the animal. Before adding a new animal to a healthy litter, you want to determine that the animal is healthy. To limit the spread of contagious disease, it is best to isolate newly acquired animals a minimum of seven days. Even if these animals do not appear to be ill, a period of quarantine is important. With animals showing signs of illness, isolation is essential to prevent exposure to healthy animals. Good hygiene is important in

animal care. Don't share utensils, equipment, etc., between ill and healthy animals. Always work from the well to the sick animals, and wash your hands after handling each individual. Be careful when placing young opossums together. If they weigh over 200 grams they may fight or cannibalize. Rabies Vector Species will need a longer period of isolation.

224. True or False. Keeping accurate records is an important part of rehabilitation.

Answer: True. You may use your own system but you are required to maintain both the NYSDEC and federal logs.

225. True or False. A prerequisite for good wildlife care is identification of the animal in question.

Answer: True. Accurate identification of the species is critical. Unless you know what you're dealing with, you won't be able to house, feed, or release it successfully.

- 226. What two factors are necessary to know before beginning care of any animal?
 - a. species identification and sex of the animal
 - b. species identification and general age of the animal
 - c. age of the animal and sex of the animal
 - d. species identification and gestation period

Answer: b. In every case species identification is important for proper care. The age of the animal is also very important because young growing animals often have different housing and feeding requirements than adults. Sexing of the animal is not important in most cases.

- 227. Identifying a species can help determine:
 - a. diet
 - b. housing
 - c. release criteria
 - d. all of the above

Answer: d. Identifying the species is critical in the psychological and physical development of the animal.

- 228. What should a licensed wildlife rehabilitator know about an animal before deciding on the diet, care and housing of the animal?
 - a. identify the species
 - b. determine the age
 - c. natural history of the animal
 - d. all of the above

Answer: d. Besides identification and age determination, knowledge of the natural history of a species gives you additional valuable information as to the diet and type of environment an animal requires for a successful rehabilitation and release.

- 229. The licensed wildlife rehabilitator should always try to:
 - a. tame the animals they care for so they don't get bitten
 - b. practice medicine without consulting a cooperating veterinarian for help
 - c. do no harm
 - d. give the public advice on how they can care for wildlife in their homes

Answer: c. One goal of wildlife rehabilitation is to avoid taming wild species. Cooperating veterinarians are the only people that are licensed to practice veterinary medicine. The public should be educated that raising or keeping wildlife as pets is also illegal. In caring for an animal, recognize your limitations and do only what you are capable of. It is always better to search out help than to proceed with something you are unsure of.

- 230. Providing heat to help an animal maintain normal body temperature and may treat the symptoms of shock. Which of the following methods is an appropriate source of warmth?
 - a. heating pad
 - b. incubator
 - c. infrared lamp
 - d. all of the above

Answer: d. Heating pads do offer heat to help maintain body temp but should not be left inside a cage where the animal can access the cords. Be aware that a lot of new heating pads have automatic shut off timers and should be monitored. Heating discs are a non-electric alternative which are good for using during transport. Heat is not recommended in cases of head trauma, but is good in other instances.

- 231. When using an external heat source to raise the body temperature of an animal you must monitor the animal carefully to prevent burns or overheating. Which of the following, if used improperly, can cause injury to the animal?
 - a. heating pad
 - b. infrared lamp
 - c. incandescent light bulb with reflectors
 - d. all of the above

Answer: d. It is important to monitor an animal, that is being warmed, to prevent overheating. If an animal is weak or injured, it may not be able to move away from the source of heat even if it is getting too hot or burned. It is very easy for an animal to receive burns from a heating pad even on the lowest setting. All animals should have the choice to be able to move away from the heat source.

232. The term weaning refers to:

- a. sleeping
- b. drinking water
- c. transition from milk to solid diet
- d. ready for release

Answer: c. Weaning is the process of gradually introducing a mammal infant, either human or animal, to what will be its adult diet and withdrawing the supply of its mother's milk.

- 233. Your facility is fully occupied and further caseloads would compromise your standard of care, your responsible options for the possibility of accepting another incoming, injured animal are:
 - a. take the animal anyway
 - b. tell the person finding the animal to take it home
 - c. refer the person finding the animal to another licensed wildlife rehabilitator
 - d. tell the person to take it to a pet store

Answer: c. Telephone interviews may solve this problem before an animal is brought to you, as you can provide advice without the need to take on another animal. Babies may just need to be left in the wild, and truly injured or orphaned animals can be sent to another licensed wildlife rehabilitator. Learn to say "no" when it is impossible for you to provide quality care for the animal.

- 234. An aquarium is a poor choice for long term housing of an animal because:
 - a. it is not always easy to store
 - b. it has poor ventilation
 - c. it has limited viewing capability
 - d. none of the above

Answer: b. Proper ventilation is critical for healthy living conditions.

- 235. When housing animals indoors in the designated wildlife area, the light to dark cycles in the room should be properly controlled. This means the light should be:
 - a. turned on when you enter a room and off when you leave
 - b. left on during the day the same number of hours as it is light outdoors
 - c. turned on and off the same time of day every day
 - d. left on for at least eight hours every day

Answer: b. It is beneficial to keep the animal's internal clock synchronized to its natural environment to aid in its re-introduction into the wild. This can be accomplished easily by setting a household timer to turn the lights on and off to match the number of hours of daylight outdoors. In addition, a UVB light should be used for growing birds or reptiles if natural light is not available.

236. True or False. It is important to simulate the proper photoperiod (day length) for animals housed indoors.

Answer: True. It is beneficial to keep the animal's internal clock synchronized to its natural environment to aid in its re-introduction into the wild. This can be accomplished easily by setting a household timer to turn the lights on and off to match the number of hours of daylight outdoors. In addition, a UVB light should be used for growing birds or reptiles if natural light is not available.

237. True or False. An animal's drinking water should be changed once a week.

Answer: False. Drinking water should not be soiled. Changing water frequently will prevent bacteria growth and keep the animals healthy.

238. True or False. Food should always be offered to animals in bowls.

Answer: False. Young animals must be encouraged to forage for food, which can be accomplished by scattering food around and hiding it. This will help to promote natural behaviors and enrichment. Uneaten food must be removed daily.

239. True or False. It is comforting for baby wild animals to be exposed to domestic animals.

Answer: False. You should never keep wild animals with domestic pets or ever consider them as surrogate parents. Dogs and cats are recognized as natural predators for many wild animals. This causes stress and stress can kill an animal. Diseases can easily pass between wildlife and domestic pets.

240. True or False. A double wired cage is a good way to protect patients from predators.

Answer: True. Having two layers of wire on a cage makes it difficult for predators to reach into a cage and grab a patient. Double wire is a requirement for RVS (Rabies Vector Species) housing. Double entry doors are required for RVS (Rabies Vector Species) and avian housing. The interior wall can be made of slats, netting or wire depending on the species being rehabilitated, but exterior walls should be wired and/or slatted.

Birds

Note: special Federal permits are required to rehabilitate most birds.

241. True or False. A chicken wire cage will provide adequate housing for raptors.

Answer: False. Chicken wire should never be used because it can cause great damage to a raptor's feathers and feet when they attempt to get out of the cage, and they may injure themselves against the wire. Small diameter welded wire is sometimes used on the outside of the cage, but is combined with slatted wood and/or netting on the inside which prevents the bird from coming in contact with the wire.

242. True or False. Placing an orphaned bird into another nest of the same species with two similarly aged chicks is a bad idea because the parents would not feed it.

Answer: False. Birds do not have the ability to count, so they will not be alarmed by the addition of a similarly aged chick to their nest. This is a good method for handling

orphaned chicks provided the parents can handle another mouth to feed. This method will work for many song bird species, but with raptors additional expertise is necessary.

243. True or False. A NYSDEC rehabilitation license is the only license required for caring for mammals and reptiles, but not most birds.

Answer: True. A federal license is required before anyone can handle federally protected migratory birds. Therefore to handle these birds you must have both a state and federal license and will report to both agencies.

244. True or False. Blue Jays scoop water into their mouths when they drink but pigeons and mourning doves suck water when they drink.

Answer: True. Blue Jays, and many birds, scoop water into their mouths using their tongue and beak like a shovel. Mourning doves are one of the few birds that actually form suction with their mouths. Make sure all birds have access to appropriately sized water dishes relative to the size of the bird's bill and method of drinking.

245. True or False. Heat should be provided for young precocial birds.

Answer: True. Precocial birds are born with some feather down, their eyes open and they can walk or swim within a few hours of hatching. The mother would normally brood the chicks to provide warmth.

246. True or False. To help with development of natural behavior, hand raised baby birds are best raised with conspecifics (species of their own kind).

Answer: True. For proper psychological development birds should be raised with the same species. This is critical for looking for mates further in life and for socialization within the species.

247. True or False. Imprinting occurs at the same age in precocial birds as it does in altricial birds.

Answer: False. In precocial birds, imprinting occurs typically within the first 36 hours after hatching. In altricial species, the critical period for imprinting is more variable, usually occurring between the development of vision and the development of fear of predators.

248. True or False. Birds of prey will attempt to mate with the species they are imprinted on, even if it is not one of their own species.

Answer: True. This is a primary reason that improperly imprinted birds must not be allowed to return to the wild. Care must always be taken to insure imprinting on humans or the wrong species does not occur. Placing an infant in direct sight of its own species helps to prevent this problem. If hand feeding, the licensed wildlife rehabilitator must be sure to have his/her face covered and should use a puppet during the feeding process.

249. True or False. Imprinting occurs before the young birds leave the nest.

Answer: True. Imprinting helps to insure the young bird will follow the parents and learn the correct responses to life in the wild. In precocial birds, imprinting occurs typically within the first 36 hours after hatching. In altricial species, the critical period for imprinting is more variable, usually occurring between the development of vision and the development of fear of predators.

250. True or False. Once a baby bird has been touched by humans, its mother will reject it.

Answer: False. Most birds have a very poor sense of smell and will not reject the baby. They should always be reunited with their parent(s) whenever possible.

251. True or False. When a nestling bird fledges, it cannot be contained in a nest and should be moved into a larger cage.

Answer: True. Fledglings are well feathered, can stand, perch and flutter, but are not yet able to fly. It is at this time that they will leave the nest for good. They should be moved to a larger cage, so they may exercise more freely while learning to fly.

252. True or False. Nestling birds should be housed in large containers with plenty of space for movement.

Answer: False. It is important to keep a nestling in a small, make-shift nest which will support the bird's body and head. If a nestling is given too much space, it will be unable to raise its head to eat and its legs may become splayed. Support by the nest is necessary at this stage to maintain the correct posture for normal bone growth. Reminder: do not use the natural nest which may contain parasites.

253. True or False. It is important not to touch a baby bird with your bare hands when placing it back in a nest because mother birds are frightened by human scent.

Answer: False. Birds have a poorly developed sense of smell. If human hands have touched a baby bird, it is not true that its mother will reject it, but gloves should always be worn to prevent disease transmission.

- 254. Which of the following is not suitable for housing wild birds?
 - a. chicken wire
 - b. solid wood
 - c. covered welded wire
 - d. a and b

Answer: a. In banging against the wire the birds will severely damage their feathers. Each species requires a specific cage design which can be expensive but necessary.

255. The best bedding for a baby bird is:

- a. green grass
- b. non-scented tissue, roll towel or toilet paper
- c. straw or hav
- d. an old bird nest

Answer: b. Straw or hay may contain molds that can harm the birds. Old nests may contain parasites. Green grass is often damp and may contain lawn chemicals.

- 256. In treating ill or injured birds, it is essential that flight feathers be protected to facilitate the earliest possible release. Flight feathers can be protected by:
 - a. keeping the cage in a quiet area with a visual barrier to external stimuli
 - b. use of a tail feather sheath
 - c. avoiding wire cages
 - d. all of the above

Answer: d. A tail feather sheath can be purchased or home-made, and it is a lightweight covering for the tail. Proper caging is essential to reduce stress, which can also cause injuries.

- 257. This is a bacterial infection of the feet, which is frequently acquired by raptors in captivity.
 - a. septicemia
 - b. bumblefoot
 - c. histoplasmosis
 - d. tularemia

Answer: b. Bumblefoot is a bacterial infection of the feet acquired frequently by birds in captivity.

258. True or False. When housing raptors, the likelihood of bumblefoot can be minimized by providing perches of different diameters.

Answer: True. Perches of different diameters can help discourage pressure sores caused by the bird's weight being distributed improperly on the feet.

259. True or False. It is important to prevent bumblefoot in birds.

Answer: True. Bumblefoot is a bacterial infection of the feet acquired frequently in captivity. Trauma to the feet predisposes a bird to this disease. Soft plastic grass carpeting or wrapping perches with hemp rope are two methods used to help protect a bird's feet. Also, make sure the bird has perches of different diameters to discourage pressure sores caused by the bird's weight being distributed improperly on the feet.

260. When a bird is ready to be housed outdoors, its cage must:

- a. be well protected and have sufficient hiding areas
- b. have perches of appropriate diameters
- c. have places for the bird to sun itself on cool days and plenty of shade in hot weather
- d. all of the above

Answer: d. Once a bird is placed outdoors; it needs to be given some protection against the elements. It needs to be sheltered from winter winds and it requires shade during the hot summer months. Any cage for housing birds should contain perches of appropriate and various diameters to prevent damage to their feet and legs. Some birds also require hiding places such as tree branches with leaves. Most birds require water for bathing as well as drinking.

261. True or False. Appropriately sized perches and/or appropriate substrates are necessary to insure healthy feet in birds.

Answer: True. Keep in mind the bird's natural history and habitat of the bird for proper perch furnishing. A variety of sizes and textures help to maintain healthy feet.

- 262. If an adult bird of the same species is not available for imprinting orphans properly, what substitutes can be employed?
 - a. juvenile or fledgling conspecifics (birds of the same species)
 - b. juveniles of another species
 - c. bird puppet or mirror
 - d. a and c

Answer: d. In order to survive in its natural habitat, all birds must learn normal socialization skills. This is accomplished during a critical period just after birth when the baby bird is exposed to an adult of the same species. This process is termed imprinting. For precocial species (birds hatched feathered who follow their parents shortly after birth), this critical period for imprinting occurs typically within 36 hours of being hatched. In altricial species (birds hatched naked, blind and totally dependent on their parents), this critical time is more variable and occurs usually after the development of visual focus but before the development of fearful responses. If an adult of the same species is unavailable for imprinting, a surrogate is recommended. Juvenile or fledgling conspecifics, sibling conspecifics with a bird puppet, or a bird puppet alone may be used as surrogates. Birds must hear sounds of their species, so play recordings for them.

263. True or False. A feather duster can be used as a "foster" mom for precocial birds.

Answer: True. Precocial birds find safety and comfort under their mother. A natural feather duster gives them a hiding place. Be sure to hang the feather duster rather, than laying it on the floor, to help avoid the birds becoming entangled.

264. True or False. Wire cage tops are good for game birds.

Answer: False. When pheasants are startled they shoot straight up in the air and can damage their heads. They can also be caught by smart predators, like hawks and raccoons.

265. True or False. Big water dishes should be left in cages with ducklings so they can swim whenever they want.

Answer: False. If ducklings are left with free access to water they could become soaked, cold and die. Limit swimming time to several short sessions a day. This will allow for proper waterproof development.

- 266. You have a federal license and are caring for a baby robin whose eyes are not open and is not yet feathered. This bird must imprint properly in order to be released successfully into its natural environment. To facilitate this process of imprinting, you must:
 - a. feed it frequently so it will reach its mature size and weight rapidly
 - b. expose this bird to human handling frequently
 - c. wait until the bird is an adult, before placing it with other conspecifics (adults of the same species)
 - d. expose this young bird to the same species within the first week or two of its life

Answer: d. In order to survive in its natural habitat, all birds must learn normal socialization skills. This is accomplished during a critical period just after birth when the baby bird is exposed to an adult of the same species. This process is termed imprinting. For precocial species (birds hatched feathered who follow their parents shortly after birth), this critical period for imprinting occurs typically within 36 hours of being hatched. In altricial species (birds hatched naked, blind and totally dependent on their parents), this critical time is more variable and occurs usually after the development of visual focus but before the development of fearful responses. If an adult of the same species is unavailable for imprinting, a surrogate is recommended. Juvenile or fledgling conspecifics, sibling conspecifics with a bird puppet, or a bird puppet alone may be used as surrogates. Birds must hear sounds of their species, so play recordings for them.

267. True or False. A brooder is an important tool for Licensed Wildlife Rehabilitators who want to rehabilitate precocial birds.

Answer: True. Brooders can be purchased or made. They provide the thermoregulation that a mother would provide for their offspring.

268. True or False. It is a good idea to keep live fish in the swimming water of fish eating birds.

Answer: False. Fish give off oils that can destroy the waterproofing on feathers. Fish should be put in separate feeding bowls of water and changed after the fish are eaten. Drinking or swimming water should be kept clean at all times. Do not allow them to swim in the water containing fish.

269. Where should the highest perch in an aviary should be placed?

- a. above the door
- b. on the outside/slatted wall of a cage
- c. on the inside/solid wall of the cage
- d. birds don't need perches at multiple levels

Answer: c. Birds will roost for the night on the tallest perch available. If it is on an outside wall, a predator like a raccoon will reach through and grab the sleeping bird.

270. In an outside aviary, where should water dishes be placed?

- a. in walkway
- b. under perches
- c. away from perches
- d. anywhere

Answer: c. If dishes are where birds can defecate in their water, it is not safe for them to drink. If you step in the water when you are trying to catch the bird, you not only contaminate the water but might injure yourself.

271. True or False. An aviary must be wider than the wingspan of a bird housed in it.

Answer: True. An aviary is where a bird is encouraged to fly. If a cage is not wide enough it will cause feather damage to the primary feathers. This will affect the bird's flight ability and result in prolonged captivity, in a larger cage, until it molts.

- 272. Damage can be prevented to tail feathers by:
 - a. proper perches
 - b. using a tail guard
 - c. proper materials in cage construction
 - d. all of the above

Answer: d. Properly constructed cages reduce the likely-hood of feather damage. A tail guard is a valuable tool to protect bird tail feathers. Tail guards must be put on properly. Seek advice from an experienced licensed wildlife rehabilitator or a falconer when beginning to take in raptors.

273. True or False. Accipiters in captivity should always have tail guards.

Answer: True. All members of the Accipiter family have long tails, are high strung and can damage their tails easily. Birds cannot be released with damaged tails.

274. True or False. Imping damaged feathers is common practice for all federally licensed wildlife rehabilitators.

Answer: False. Imping is the way to replace damaged feathers with new ones. While easy to do, this is a procedure that requires training. It requires experience and access to exact matches of the damaged ones. It should only be attempted under the supervision of an experienced Licensed Wildlife Rehabilitator or a falconer. It is better to prevent damage from happening in the first place.

275. True or False. Perches should be firmly fastened to walls to prevent movement.

Answer: False. Swinging perches promote better balance and are good for healthy foot care. In the wild, branches move.

Mammals

- 276. You have been presented with a baby opossum that is listless and disinterested in food or water. What should you do first?
 - a. warm it up
 - b. try to feed it with a bottle
 - c. stomach tube (gavage) it
 - d. wait until dark and see if it perks up
 - Answer: a. Most baby animals arrive too cold (hypothermic). Warming it is your first priority. Do not attempt to feed it before it is thoroughly warm as it will not be able to digest food at that stage.
- 277. True or False. Before their eyes are open, most young mammals need to be stimulated to urinate and defecate by rubbing their genital area with a warm, wet cloth or cotton ball.
 - Answer: True. This simulates the licking of the mother. This should be done regularly before and after feeding, though they may not urinate and defecate every time.
- 278. True or False. Mammals should be provided with multiple hiding places in their cages.
 - Answer: True. Multiple hiding places give them choices and encourage natural behaviors.
- 279. True or False. A healthy young opossum, 10 inches or longer (including its tail), is still in need of care.
 - Answer: False. A ten inch opossum is approximately three and a half months old. At this age they will be fully furred and eating on their own. They may be ready for release if they weigh over one and one half to two pounds.
- 280. True or False. Baby rabbits should be fed every 3 to 4 hours during the day.
 - Answer: False. Baby rabbits only need to be fed 2 times every 24 hours: dawn and dusk. Between feedings they are best left in a quiet, warm location.
- 281. It is important to clean rabbit cages frequently so they will not eat their feces.
 - Answer: False. Rabbits ingest the first feces of the day, which contain large amounts of protein & vitamins. This process is called coprophagy and is a normal and necessary process in the life of a rabbit. Cages should be cleaned daily.
- 282. Which of the following statements is not true about baby cottontail rabbits?

- a. They need to be stimulated to urinate
- b. They begin eating solid food when they are ten days old
- c. During the first week, they are kept warm by the mother who stays with them in a furlined nest
- d. They usually do better when the litter is raised together, rather than separated and raised alone

Answer: c. The mother does not stay with the young. She leaves them camouflaged in the nest all day and returns only at dawn and dusk to feed them. Once weaned, rabbits should be fed pesticide-free natural foods such as grasses, clovers, dandelions, and timothy hay. No fruit!

283. True or False. Handling of adult or older juvenile cottontail rabbits causes stress, which can be as serious as any injury.

Answer: True. Rabbits are very difficult to maintain in captivity and stress easily

284. True or False. Cottontail rabbits are independent by about 4 weeks of age.

Answer: True. Young rabbits are independent when their eyes are round, not almond shaped, the ears are straight up and the fur is spikey, not slick to the body. Rabbits that fit this description don't need our help.

285. True or False. To safely transfer a fawn in a vehicle, you should bind their legs and place a bag over their head to minimize stress and danger for them and the captor.

Answer: False. Do not cover their heads. Deer experience capture myopathy very easily when they cannot see or hear what is happening around them. If they cannot move and feel trapped, they can go into shock and very easily die. Young deer can be transported in a large dog crate.

286. True or False. All pre-release mammal caging should encourage physical activity to promote good muscle tone in the animal so that it can engage in natural foraging behavior before it can be released.

Answer: True. Providing proper caging is an essential role of wildlife rehabilitation.

- 287. Which of the following are good food items to give to weaning cottontails?
 - a. timothy hay
 - b. clover
 - c. dandelion greens
 - d. all of the above

Answer: d. It is important when picking greens that they are pesticide free. Feeding weaning cottontails anything that they do not regularly consume in the wild can cause digestive problems. Lettuce, apples and other fruits can cause diarrhea.

288. True or False. Upon admission of a young cottontail, it is important to start them on full strength formula.

Answer: False. Cottontails should be fed diluted formula at first.

289. True or False. Lactobacillus is an important additive to the cottontail formula.

Answer: True. Lactobacillus provides beneficial bacteria for the digestive system of young animals

290. True or False. Young bobcats must be overwintered for a spring release.

Answer: True. Young bobcats can be released at nine months of age. They are born in late April and nine months brings release date to late December. In New York State, this is a difficult time of year to find prey and chances of survival are greatly reduced.

- 291. Which of the following should not be used to catch an injured adult bobcat?
 - a. chemical immobilization
 - b. gardening gloves
 - c. a catch pole
 - d. a capture net

Answer: b. Gardening gloves are not effective protection against the claws and teeth of a wildcat. Bobcats are extremely dangerous animals. Capture and restraint should only be attempted by an experienced licensed wildlife rehabilitator.

- 292. A cage for housing a bobcat needs to have the following feature:
 - a. a closed roof
 - b. hiding places
 - c. climbing places to encourage agility and balance
 - d. all of the above

Answer: d. Bobcats are secretive animals and will not feel comfortable in a cage were they cannot conceal themselves. They are good climbers and need to be agile before a release.

293. True or False. Adult Muskrats should be housed together.

Answer: False. These animals fight over housing. Only siblings would share a den in the wild. Adults should be housed alone.

294. True or False. It is easy to meet the psychological and physical needs of a river otter in a hospital cage.

Answer: False. River otters need access to water for swimming. Denying access to water for long periods will increase anxiety and stress levels.

295. True or False. All members of the weasel family are easy candidates for beginning licensed wildlife rehabilitators to take care of.

Answer: False. Weasels are voracious predators with sharp claws and teeth that can easily inflict injuries to their handler.

296. True or False. Young Black bear are easily captured by using gardening gloves and a blanket.

Answer: False. Even as cubs, these animals are extremely strong and very dangerous.

297. True or False. Northern flying squirrels should always be housed in separate cages.

Answer: False. These nocturnal animals are extremely social animals that den & feed together so should be housed together whenever possible. Be aware of possible contamination between animals. Only healthy animals can be housed together.

Reptiles and Amphibians

298. Insufficient temperatures for reptiles promote which of the following:

- a. lack of appetite and poor digestion
- b. increased level of activity
- c. increased tendencies for infection and impaired healing
- d. a and c

Answer: d. Reptiles are cold-blooded animals and require supplemental heat. A temperature gradient is preferred with one end of the cage being warmer than the other.

299. True or False. Most aquatic turtles will eat only if they are underwater.

Answer: True. Aquatic turtles eat underwater in the wild and should be fed that way in captivity.

300. Which of the following is a suitable food to give to Painted Turtles to make them begin eating?

- a. apples
- b. hamburger
- c. earthworms
- d. dry dog food

Answer: c. Movement from live earthworms will trigger an instinctual feeding response.

- 301. Snakes will often regurgitate their food if they:
 - a. find it tastes bad
 - b. are disturbed or handled too soon after eating
 - c. if they are cold
 - d. b and c

Answer: d. Snakes must be fed when they are warm. If the snake is too cold the food will not digest properly. They must be allowed to rest and digest their food prior to handling.

- 302. Which is not an important consideration when housing a reptile?
 - a. range of temperatures within an enclosure
 - b. proper night/day cycles
 - c. natural sounds
 - d. hiding places

Answer: c. Reptiles are not particularly sensitive to any noises but rather prefer a quiet space. The enclosure must include a range of temperatures, lighting cycles and have hiding places.

303. True or False. It is okay to house a wild reptile that you are rehabilitating in the same enclosure as a pet reptile.

Answer: False. Once a native reptile has contact with a pet reptile it has potentially been exposed to pathogens that can harm the native population and can no longer be released.

304. True or False. A healthy reptile does not need a UVA/UVB light source.

Answer: False. UVA/UVB light sources are vital to a reptile's well-being. They maintain eating and mating behaviors and the synthesis of Vitamin D3. Without it, a reptile may stop eating, become lethargic and succumb to diseases such as metabolic bone disease.

VIII. Nutrition and feeding methods for wild species

Note: Prior to feeding any animal, be sure it is at a normal body temperature and normal state of hydration.

Birds

Note: A federal license is required to handle most birds. The natural history information is provided to assist you during temporary care.

305. True or False. A federal license is required for a NY state licensed wildlife rehabilitator to work with migratory birds.

Answer: True. A federal license is required for a New York State licensed wildlife rehabilitator to work with migratory birds. They are protected by the U.S. Fish and Wildlife Service federal regulations.

306. The natural diet of adult robins, orioles, cedar waxwings and catbirds consists of which of the following food groups?

- a. seeds and nuts
- b. insects and wild fruits
- c. mice
- d. fish and frogs

Answer: b. You should feed them their natural diet of insects and wild fruits.

307. The natural diet of adult chickadees, finches, grosbeaks and sparrows consists of which of the following food groups?

- a. mainly seeds, insects and fruits
- b. mainly fruits with some insects
- c. mainly earthworms
- d. mainly fruits

Answer: a. These birds' beaks have evolved for eating seeds.

308. Some insects and nectar from flowers are the natural diet of which of the following?

- a. chickadee
- b. hummingbird
- c. house sparrow
- d. bluebird

Answer: b. Hummingbirds eat nectar, but must be provided insects as well to maintain a balanced diet.

- 309. The natural diet of loons, herons and grebes consists of which of the following food groups?
 - a. fish, amphibians, crustaceans and insects
 - b. seeds, nuts, berries
 - c. fruits, seeds, insects
 - d. carrion (dead animals)

Answer: a. These specialized birds live in or near water and require aquatic live food items.

- 310. Which of the following groups of birds would eat grubs, nuts, beetles, and to some extent, berries?
 - a. kestrels and screech owls
 - b. kingfishers and ospreys
 - c. ducks and geese
 - d. woodpeckers, sapsuckers and flickers

Answer: d. Birds have specialized diets. Learning their natural history is important for proper captive care.

311. True or False. Whole prey items such as mice, rats and quail are the best foods for a raptor (bird of prey).

Answer: True. Birds have specialized diets. Learning their natural history is important for proper captive care.

312. True or False. Although adult sparrows and finches eat seeds, they feed their nestlings mostly insects

Answer: True. Most songbird nestlings eat primarily an insect diet, no matter what they eat as an adult.

- 313. Freshwater fish should not be fed to fish-eating species of marine birds because:
 - a. of exposure to new types of parasites
 - b. less salt is present in the fish than in saltwater fish
 - c. they won't eat this type of fish
 - d. these fish have less of the necessary nutrients for this species of bird

Answer: a. When feeding live fish to species in captivity, it is important these fish come from the same habitat as that of the bird being fed. Often, there are parasites present in fish and birds have adapted to the types of organisms present in their normal environment. If exposed to parasites from foreign environments, they may become ill.

314. True or False. Ducklings can be fed turkey starter, non-medicated chick starter or a similar feed.

Answer: True. Care must be used when selecting any commercial food product.

315. True or False. It is sometimes difficult to get young precocial birds to eat in captivity.

Answer: True. Many precocial young feed primarily on insects, worms and other small moving items. It is often difficult to give them the correct stimuli in captivity. Canada geese, and other precocial species that eat plants are easier to care for.

- 316. A typical nestling songbird needs to be fed how often?
 - a. hourly around the clock
 - b. every 30 minutes dawn to evening
 - c. 4 to 6 times per day
 - d. every 2 hours

Answer: b. Very young babies of most common, passerine bird species must be fed about every 20 to 30 minutes from early morning until mid-evening. Providing the proper food is important, so you must be able to identify the species you have in hand. Several of the basic references give diets for many species, in addition, warmth must be provided and the young must be kept clean. This means removing the feces every time the young birds defecate. As they get older, they can be fed with decreasing frequency. Some birds (like doves) eat more per feeding and can be fed less often. However, they require a very different diet than most birds.

- 317. True or False. A missed feeding for a nestling bird can be made up at the next feeding by doubling the amount.
 - Answer: False. You cannot compensate for a missed feeding by doubling the amount on the next feeding. Some nestlings will let you know when they are full by turning away or refusing to gape. Some, such as Goldfinches, will continue to overeat and you must control this.
- 318. True or False. Pigeons and doves are fed the same diet and with the same technique as other young birds.

Answer: False. Pigeons and doves are fed "crop milk" which is regurgitated by their parents for the first few days. Several formulas exist for substitutes. Do not feed mammalian milk. These birds have a crop, which holds a great deal of food, so they don't have to be fed as often (every couple of hours, depending on age).

319. True or False. The trachea in all birds is just behind the tongue.

Answer: True. It is important to know the location of the trachea to avoid aspiration during tube feeding.

Mammals

320. A young injured coyote is brought in for rehabilitation after being hit by a car. What is the most appropriate diet for this animal that would most closely mimic its natural diet?

- a. vegetables and fruits
- b. raw meat only
- c. berries and grasses
- d. All of the above

Answer: d. Though coyotes are classified as carnivores, they are actually omnivores and should be fed a variety of vegetables, fruits, berries, grasses and meat.

321. True or False. In a captive situation, a wild animal offered a variety of foods will always eat those foods that are good for it.

Answer: False. Animals will often choose a favorite or convenient food. This is not necessarily the most nutritious choice.

322. True or False. Tube-feeding is the preferred routine method for feeding most healthy baby animals.

Answer: False. Tube-feeding should be used as a method of feeding only when the animal refuses to eat, is too thin for solid foods, or is too weak to eat on its own. If tube-feeding is used routinely, damage may occur to the esophagus or cause aspiration concerns. However, with orphaned, nursing opossums tube-feeding may be the most practical way to feed.

323. True or False. Adhering to a regular feeding schedule is as important as feeding the proper diet.

Answer: True. Frequency of feeding is as important as feeding a balanced diet. A routine scheduled feeding keeps food moving through an animal's gastrointestinal system at a constant rate. Erratic feeding can cause food to be digested incompletely and may cause illness. Recommended frequencies vary from species to species

324. True or False. A hole in a feeding nipple that is too large can cause leakage of formula and lead to aspiration and/or pneumonia.

Answer: True. A large opening in feeding nipples allows excess fluids into the animal's mouth. This can lead to some fluids being inhaled into the lungs (aspiration) which may lead to pneumonia.

325. True or False. Aspiration of formula into the lungs can lead to pneumonia.

Answer: True. Aspiration is the inhalation of fluids into the lungs. Any fluids in lungs may lead to pneumonia.

326. True or False. Formula must be warmed to body temperature before feeding.

Answer: True. Temperature is critical because scalding can occur if too hot and regurgitation if too cold.

327. Gavage is another name for what technique:

- a. tube-feeding
- b. wound flushing
- c. injection
- d. euthanasia

Answer: a. Tube feeding, or gavage, is the technique of inserting a tube into the stomach of an animal to provide nourishment to animals unable or unwilling to self-feed.

328. True or False. The purpose of gavage is to provide adequate nourishment to animals unable or unwilling to self-feed.

Answer: True. Animals in a weaken state cannot process the same food as healthy animals.

329. True or False. A recently rescued, emaciated animal should not be fed solid food.

Answer: True. This animal should be rehydrated prior to any attempt to feed it. Follow proper emaciation protocol and take the time needed to bring the animal back to a stable condition to a point where it can begin to process a normal diet.

330. True or False. Tube-feeding mixes for emaciated animals should be elemental diets that require little energy to digest.

Answer: True. There are multiple steps to treating emaciated animals and it is the licensed rehabilitator's job to be familiar with this type of care.

331. True or False. As long as a nutritionally balanced diet is provided for orphans, the frequency of feeding is not important.

Answer: False. Frequency of feeding is as important as feeding a balanced diet. A routine scheduled feeding keeps food moving through an animal's gastrointestinal system at a constant rate. Erratic feeding can cause food to be digested incompletely and may cause illness. Recommended frequencies vary from species to species.

332. True or False. The first step in counteracting emaciation or starvation in an animal is to encourage them to eat a normal diet.

Answer: False. After having lost a large portion of its normal body weight, you do not want the debilitated animal to use its last remaining calories trying to digest food. It is much better to feed it a diet composed of simple molecules, such as amino acids and dextrose, which requires little energy for absorption. Consult with your cooperating veterinarian.

333. True or False. Introduction of live prey into a large flight cage is an excellent way to train young raptors and predatory mammals to hunt and kill prey.

Answer: True. Live food is required in training of all young, inexperienced animals. It allows you to assess the predator's readiness for release and also enhances muscle development.

334. Carnivorous mammals and birds should be fed:

- a. whole prey animals
- b. table scraps and some vegetables
- c. whatever they seem to like
- d. meat scraps

Answer: a. A natural diet is important to an animal's proper health. Tearing prey and chewing cleans teeth and strengthens muscles. In raptors it allows beaks and talons to wear down naturally. Young animals learn to recognize what is natural food.

- 335. The proper diet for nursing orphaned young cats (bobcats, lynx) is:
 - a. a soft canned dog food
 - b. puppy milk replacer (Esbilac(D)
 - c. kitten milk replacer (KMR)
 - d. soaked puppy chow

Answer: c. As a rule, when feeding kittens and cats a commercial food product, it must be nutritionally designed for cats. Growing and adult cats require certain amino acids, dogs do not. If cats are fed diets which lack these nutrients, serious irreversible blindness can occur in a matter of days.

336. True or False. Tube-feeding can be used routinely in any healthy mammal.

Answer: False. Repeated tube feeding can cause throat irritation, and you run the risk of accidentally inserting in the lungs and aspiration.

- 337. While feeding a young squirrel, you notice milk bubbles around the nose and mouth. You should:
 - a. stop feeding, wipe the surplus off, and hold the head down and gently shake or rub in between the shoulders
 - b. assume it does not like the taste of the milk and will get used to it in time
 - c. wipe the surplus off and place the squirrel on its back
 - d. stop the feeding because its stomach is full which is why the milk is coming back up

Answer: a. This squirrel has aspirated fluid into its respiratory tract. During the next 24-48 hours, you should be especially alert for signs of pneumonia. You may need to contact a cooperating veterinarian. You may want to use a feeding syringe for better control

338. True or False. Neonatal opossums are best fed from a bottle or an eyedropper.

Answer: False. These neonates do not suckle normally and only nurse very slowly on their own, and tube feeding is often the only practical method. Do not attempt this without previous experience.

339. True or False. The easiest and best method for feeding very young opossums is by stomach tube-feeding (gavage).

Answer: True. Neonatal opossums do not suckle normally and only nurse very slowly on their own. Tube feeding is often the only practical method. Do not attempt this without previous experience.

340. True or False. It is always necessary to stimulate young nursing mammals to urinate and defecate before and after each feeding, if their eyes are closed and for several days after they open.

Answer: True. Use a warm damp cotton ball. Wear gloves. In nature their mother would do this for them.

341. True or False. When feeding a juvenile in your care, it is better to over feed to be sure they get enough than to under feed.

Answer: False. When feeding a young animal, overfilling of the stomach can lead to discomfort with subsequent curdling or souring of the meal before it can be digested adequately.

342. True or False. Nursing mammals should be held like human babies when being fed, on their backs.

Answer: False. A good rule of thumb is to simulate the natural feeding posture, e.g. an infant squirrel should be on all four feet with its head at a 30-40 degree angle. Feeding should be done in a quiet, low stress area.

343. True or False. Esbilac(D), KMR, Multi Milk, Zoologics and Fox Valley formulas are the common milk replacers used for rearing most orphaned wild mammals.

Answer: True. These are all recommended milk replacers. Use what is readily available to you.

344. True or False. Formula feedings should be discontinued in the case of diarrhea in young mammals.

Answer: True. In general, when an animal has diarrhea it is a good idea to replace the formula with electrolytes for 12 - 24 hours, to give the intestinal tract a chance to rest and repair damage. Supplemental subcutaneous fluid replacement may be required. Gradually reintroduce the formula beginning with a diluted solution. Do not let babies get dehydrated. You may need to consult your cooperating veterinarian if the diarrhea continues.

345. True or False. Mammals are easier to tube-feed than birds because their glottis (opening to the trachea) is visible when the mouth is opened.

Answer: False. The glottis of birds is visible at the base of the tongue, in front of the opening to the esophagus. In mammals, the glottis is located much farther back in the throat and is more difficult to visualize.

346. Aspiration pneumonia is a potential problem associated with hand feeding of orphaned mammals. It is caused by:

- a. feeding too large a volume of formula too rapidly
- b. burning the face with the warmed formula
- c. missing more than one feeding
- d. a and c

Answer: a. When hand feeding any young mammal, the rate of flow of the formula should be monitored carefully. If the formula flows into the mouth too rapidly, the excess may be aspirated into the trachea, then will travel down to the lungs where an infection will develop. This is termed aspiration pneumonia. Feed slowly to ensure the liquid is swallowed properly.

347. True or False. If fluids enter the trachea and go into the lungs it is possible for the animal to get pneumonia or even drown.

Answer: True. When hand feeding any young mammal, the rate of flow of the formula should be monitored carefully. If the formula flows into the mouth too rapidly, the excess may be aspirated into the trachea, then will travel down to the lungs where an infection will develop. This is termed aspiration pneumonia. Feed slowly to ensure the liquid is swallowed properly.

- 348. You are hand-feeding a very young chipmunk whose eyes have not yet opened. After feeding, you need to stimulate the animal to assist it with urinating and defecating. This is best accomplished by:
 - a. gently pressing on the chipmunk's stomach
 - b. gently massaging the chipmunk around its anal and urinary openings with a warm, wet cloth
 - c. letting your dog lick the chipmunk as if it were its mother
 - d. carefully dipping the hind end of the chipmunk in a container of warm water

Answer: b. By gently massaging the genital area, stimulation of urination and defecation will occur. This should be done after giving fluids and after each feeding.

Mammals learn to regulate their own bowel movements and urination habits shortly after their eyes open. Always make sure the animal is clean and dry before returning it to its cage. Never expose your pets to possible contaminates from wildlife.

349. True or False. Muskrat are aquatic rodents that prefer to feed on young waterfowl.

Answer: False. Muskrat are aquatic animals that prefer to eat aquatic plant stems and roots. Other food is sometimes consumed, but the majority of their diet is vegetation.

350. Among the common diseases that are found in the Virginia Opossums are:

- a. metabolic bone disease
- b. obesity
- c. dermal Septic Necrosis
- d. all of the above

Answer: d. Opossums are susceptible to all of these. Please consult a reference guide.

- 351. The preferred food of a Canada lynx is:
 - a. snowshoe hare
 - b. white-tailed deer
 - c. great horned owls
 - d. fruit

Answer: a. While they are capable of hunting other prey, the Lynx has evolved to prey on these lagomorphs. The Lynx's feet are broad for traversing deep snow, and they have a great sense of smell and hear very well. All of these features create an advantage in preying on hares.

- 352. In a rehabilitation situation, weaned black bears should be fed:
 - a. fruits
 - b. vegetables
 - c. rodents
 - d. all of the above

Answer: d. Black bears are omnivores and must be fed a balanced diet.

- 353. Black bear cubs are weaned at what age?
 - a. 6-8 weeks
 - b. 13-15 weeks
 - c. 22-26 weeks
 - d. 30-35 weeks

Answer: c. Reference guides are important tools to help find ages in the development of animals.

Reptiles and Amphibians

354. Which of the following would affect a snake's appetite:

- a. stress
- b. humidity
- c. temperature
- d. all of the above

Answer: d. A reptile's metabolism is different from a bird or mammal. They don't eat as frequently as birds and mammals. Reptiles have specialized feeding requirements and their appetite can be effected other external factors.

- 355. Which is not important to consider when it comes to tube feeding a turtle?
 - a. type of tube
 - b. amount of substance being administered
 - c. weight of turtle
 - d. the turtle was in water prior to tube feeding

Answer: d. It doesn't matter if the turtle swims before or after tube feeding.

General

- 356. Which of the following is not a good source of essential vitamins?
 - a. brewer's yeast
 - b. water
 - c. liver
 - d. sunlight

Answer: b. Water, although essential for all life, does not contain any vitamins. Brewer's yeast is a good source of B vitamins. Liver is deficient in calcium but does contain several trace minerals as well as many vitamins. Although sunlight doesn't actually contain vitamins, it is important because it aids in the conversion of vitamin D into its more active form.

- 357. When supplementing an animal's diet with vitamins and minerals:
 - a. be sure to use very high doses
 - b. human vitamins are as good as any
 - c. talk to your cooperating veterinarian first
 - d. use supplements and dosages recommended for dogs

Answer: c. Supplementing vitamins and minerals sounds routine. However, animals that consume a balanced diet should not need supplements. In addition, the requirements of different species vary. Some vitamins and minerals can be toxic if taken in excessive quantities.

358. True or False. Vitamin D is an essential component in the diet of most animals.

Answer: True. Vitamin D is important in blood pressure regulation, insulin secretion, increased immunity and it is essential for efficient utilization of calcium.

359. True or False. It is possible to roughly determine an animal's caloric requirements by knowing its bodyweight.

Answer: True. See reference books, such as Project Wildlife's rehabilitation guide to learn medical math.

360. True or False. An emaciated animal requires special attention to correct the many physiological imbalances that occur with malnourishment.

Answer: True. Animals in a weakened state cannot process the same food as healthy animals.

361. True or False. Providing fluids, such as Lactated Ringer's solution, to a debilitated animal will take care of an animal's caloric requirements.

Answer: False. Lactated Ringer's solution contains water and several electrolytes (molecules such as sodium, potassium, chloride, bicarbonate) and are useful for hydration. However, these solutions do not contain any protein, fat or carbohydrates, so they do not provide any calories.

362. True or False. For their size, growing, juvenile animals have greater caloric requirements than adults.

Answer: True. The additional energy is needed to form the new bones and tissues.

363. True or False. Calcium and phosphorus must be in correct balance in an animal's diet to ensure proper bone development and prevent bone abnormalities.

Answer: True. These vital minerals are necessary in the correct balance to ensure proper bone development.

364. True or False. Raw hamburger is a good basic diet for most carnivorous birds.

Answer: False. Hamburger is not a natural diet for wildlife and you may expose your animals to E-coli bacteria. Some meats are high in phosphorous and can contribute to calcium imbalance.

365. True or False. No native New York wildlife species is capable of subsisting solely on fruit.

Answer: True. This is because fruits are very low in protein, fats and other essential nutrients. Fruits are high in sugar, and in the wild fruit would not be available all year long.

366. Young, rapidly growing animals, birds and reptiles may develop bone abnormalities when their diets are deficient in which of the following minerals?

- a. zinc
- b. sodium
- c. calcium
- d. selenium

Answer: c. Lack of available dietary calcium lowers blood calcium to the point where mineralization of bone ceases. This condition is called rickets. Feeding an all meat or organ tissue diet can cause rickets due to the very low levels of calcium present in these foods.

- 367. Metabolic bone disease can result from which of the following problems?
 - a. calcium deficiency
 - b. vitamin D deficiency
 - c. Improper calcium:phosphorous ratio
 - d all of the above

Answer: d. Proper levels of calcium and phosphorus are necessary for normal bone development. Vitamin D is involved in the absorption of calcium from the diet. Therefore, indirectly, it is needed for proper bone development, too.

- 368. What are the two minerals crucial for proper bone development?
 - a. calcium and iron
 - b. calcium and phosphorus
 - c. iron and zinc
 - d. zinc and phosphorus

Answer: b. Proper levels of calcium and phosphorus are necessary for normal bone development.

369. True or False. Birds or mammals fed mainly a fish diet should receive supplemental thiamine (vitamin B1) to prevent a serious vitamin deficiency.

Answer: True. In their natural habitats, birds compensate for the lack of vitamin B1 in these fish by eating a wide variety of fish. But when feeding frozen fish to fisheating birds in captivity, you must supplement the diet with vitamin B1. Supplemental thiamine should also be used for fish-eating reptiles or mammals.

- 370. What is the proper calcium:phosphorous ratio in an adult animal?
 - a. 1:1 to 2:1
 - b. 1:2 to 1:4
 - c. 5:1
 - d 4·1

Answer: a. Animals need a calcium:phosphorous ratio between 1:1 to 2:1. Anything else will result in improper bone structure.

- 371. When feeding fish-eating birds, such as herons or egrets in captivity it is essential to supplement their diet with which of the following vitamins?
 - a. A
 - b. B1
 - c. C
 - d. D3

Answer: b. In some fish there is an enzyme called thiaminase which destroys vitamin B1. In their natural habitats, birds compensate for the lack of vitamin B1 in these fish by eating a wide variety of fish. But when feeding frozen fish to fish-eating birds in captivity, you must supplement the diet with vitamin B1 as vitamin B is destroyed by freezing. Supplemental thiamine should also be used for fish-eating reptiles or mammals.

IX. Restraint and Physical Examination

- 372. Which of the following are important questions to ask when accepting an animal for rehabilitation?
 - a. where was the animal found
 - b. how long have the people had the animal and did they feed it
 - c. was any human or pet bitten or scratched by the animal
 - d. all of the above
 - Answer: d. Standard practice upon intake is to ask as many questions as possible. Records are necessary and the information provided will help to determine the animal's treatment regime and its eventual release. It is helpful to have a predetermined list of essential questions on an intake form.
- 373. Records and information taken by licensed wildlife rehabilitators should include which of the following?
 - a. admittance data: background information on the animal
 - b. physical exam information
 - c. treatments and daily observations
 - d. all of the above
 - Answer: d. Standard practice upon intake is to ask as many questions as possible. Records are necessary and the information provided will help to determine the animals treatment regime and its eventual release. It is helpful to have a predetermined list of essential questions on an intake form.
- 374. True or False. Licensed wildlife rehabilitators should attempt to obtain a detailed history and as much background information as possible on each animal admitted.
 - Answer: True. Standard practice upon intake is to ask as many questions as possible. Records are necessary and the information provided will help to determine the animals treatment regime and its eventual release. It is helpful to have a predetermined list of essential questions on an intake form.
- 375. If you are called to pick up a five-day-old screech owl, which has fallen out of the nest cavity and has no obvious injuries, the best thing to do is:
 - a. remove the owlet and cross-foster it with a non-releasable adult owl
 - b. return the owlet to the nest cavity, if at all possible
 - c. place the owlet on a low branch of the nearest tree
 - d. remove the owlet and hand-rear it
 - Answer: b. Animal parents will always do a better job than a rehabilitator. The owlet is too young at this age to make it back into the nest on its own. Placing it nearby on a low branch is not recommended.

376. True or False. A bird that has flown into a window sometimes only needs a couple of hours rest in a dark quiet, well-ventilated, warm box before it can recover and be released.

Answer: True. Let the bird sit and rest for a few hours. Examine the bird for injuries before placing in the box and prior to release.

377. True or False. You should always examine the eyes of an animal with suspected head trauma.

Answer: True. Pupil size and response to light will give clues to an animal's brain condition and or viability. It is important to be able to recognize what is normal in a healthy animal. Bleeding into the chambers of the eye frequently results from head trauma and may impact vision.

378. True or False. During a physical exam, one simple rule to aid in determining abnormalities is to look for physical bilateral symmetry.

Answer: True. The left side should be a mirror image of the right side in all animals. If something is not symmetrical it is a sign of an underlying injury.

379. True or False. The normal body temperature for all mammals is 98.6°F.

Answer: False. Body temperatures vary depending on species.

380. How do you recognize if a bird is severely dehydrated?

- a. its skin will spring back to normal position after being pinched
- b. the color of its mouth will be bright pink
- c. its saliva will be sticky and stringy
- d. its droppings will be green

Answer: c. Lack of fluid results in abnormal saliva. Sub Q or IV fluids will be required to bring the bird back to a normal state of hydration.

- 381. Which of the following observations might help in the determining a wild animal's condition?
 - a. color and consistency of the bowel movements
 - b. breathing pattern
 - c. posture and head position when standing
 - d. all of the above

Answer: d. It is important to conduct a full physical examination before deciding the protocol for treatment.

382. True or False. The clinical signs or symptoms of rabies and distemper are distinctive enough for a licensed wildlife rehabilitator to determine the difference in a wild animal.

Answer: False. Only laboratory examinations can differentiate between these two diseases. Several diseases often display the same symptoms. Proper precaution should always be taken when rabies is a possibility.

383. True or False. Any adult wild animal that allows humans to approach it closely is most likely sick or injured.

Answer: True. Normal behavior in healthy wild animals is to avoid all human contact.

- 384. A woodchuck that has been found alongside the road is brought to you. It staggers when walking, it seems uncoordinated, its head is tilted to one side and its pupils are different sizes. Which of the following problems can be considered possible causes of these symptoms?
 - a. trauma
 - b. toxin ingestion
 - c. disease
 - d. all of the above

- Answer: d. Neurological signs, such as circling in one or both directions, head tilt, eyes that quiver or rotate, asymmetrical pupils, staggering or lack of coordination all can indicate a disorder of the central nervous system. There are a number of possible causes for these signs including head trauma, ingestion of toxins, parasites (such as, Baylisascaris procyonis or raccoon roundworm), and infectious diseases such as canine distemper and rabies. Extreme caution should be used in handling these animals. Veterinary assistance is best to determine the exact cause and treatment of the problem because many diseases which affect the central nervous system demonstrate the same symptoms.
- 385. If a mammal is exhibiting signs of having difficulty swallowing, one should suspect:
 - a. toxic ingestion
 - b. a foreign object in the throat
 - c. rabies
 - d. all of the above

Answer: d. Any one clinical sign in an animal may have many possible causes. Examination of food and the mammal itself can help rule out some of the possible causes. Use extreme caution when handling any mammal demonstrating neurological signs compatible with rabies.

386. True or False. Mammals showing central nervous system symptoms should always be considered possibly rabid and should be euthanized.

Answer: True. A mammal that appears to have signs of rabies should be euthanized. It is imperative that you follow proper rabies protocol by contacting the local health department for advice. Insure that there has been no exposure to humans or domestic animals. You must also insure proper disposal of the body occurs.

387. You admit a red fox which is suffering from hair loss. While handling the animal with gloves, you should:

- a. assume the hair loss is nutritional and correct with proper diet
- b. treat for mange mites with a commercial flea and tick dip
- c. isolate the animal and contact a cooperating veterinarian
- d. put the animal in with another fox for company

Answer: c. A number of problems may cause this condition. Quarantine is important because animals may have something communicable to you or to other animals. You really cannot know what the problem is without a proper diagnosis from your cooperating veterinarian.

388. In rescuing an animal in the field, the licensed wildlife rehabilitator's paramount concern is:

- a. securing the animal at all cost
- b. safety to the people involved
- c. using high-technology capture equipment
- d. working alone

Answer: b. Safety should always be your first priority.

389. True or False. When handling an animal, safety of the person restraining or rescuing the animal is the first and foremost concern.

Answer: True. Safety should always be your first priority.

390. True or False. When handling or restraining any animal it is imperative to know what its natural defenses are to help avoid injury to the rescuer.

Answer: True. A raptor's feet and talons are its major weapons, a heron uses its beak, and a mammal may use teeth and nails.

391. True or False. Severely emaciated or dehydrated mammals should not be fed solid food right away.

Answer: True. The first two to three days are critical and these patients should be rehydrated then given easily digestible liquid nutrition.

- 392. Eye protection is especially important when handling:
 - a. Bitterns, herons, egrets, loons, & cormorants
 - b. Any large mammals
 - c. Hawks or owls
 - d. Woodchucks

Answer: a. These birds have long necks and stabbing beaks which can injure you. They instinctively strike at your face, so eye protection is necessary.

393. True or False. When handling a great blue heron you must be careful of its long neck and sharp beak and protect your eyes.

Answer: True. When capturing a great blue heron, no one has arms long enough to hold the bird's body at a safe distance. Their necks are so long they can injure your face. BE CAREFUL. Grab the beak or head with one hand and then tuck the bird's body under your opposite arm. Always maintain control of the head and beak. It is important to wear goggles for eye protection. Seek advice and transfer the bird immediately to a federally licensed wildlife rehabilitator.

- 394. When transporting an animal that is restrained in a blanket or towel the Licensed Wildlife Rehabilitator must be aware of the possibility of the animal becoming:
 - a. hyperthermic
 - b. hypothermic
 - c. anemic
 - d. epileptic (having seizures)

Answer: a. Hyperthermic is the increase in body temperature which causes overheating of the animal. Hypothermic is the opposite which produces a decrease in the body temperature. Anemia is a decrease of red blood cells. Epileptic means having seizures. The stress of transportation often causes hyperthermia.

395. True or False. A towel or blanket, heavy (e.g. welder's) gloves and eye protection are three basic items useful for handling animals.

Answer: True. These are standard tools for proper capture and transport. They insure the safety of both the capturer and the animal.

- 396. To transport small birds to a federally licensed rehabilitator or cooperating veterinarian:
 - a. place the bird in a parakeet cage
 - b. wrap the bird securely in a towel
 - c. place it in a brown paper bag or cardboard box
 - d. keep it warm in your hands

Answer: c. A bag prevents feather damage and safely contains the birds. Wild birds should never be placed in a parakeet cage. Keeping the bird in your hand is never good as it stresses the bird and exposes you to zoonotic diseases.

- 397. Rescued small animals should be transported in which manner?
 - a. in your hands
 - b. in a warm, well ventilated, dark box or crate
 - c. in an open bucket
 - d. under your jacket

Answer: b. Use a dark box or crate that is well ventilated, but not too warm. In summer animals may easily become overheated. Mammals have been known to quickly chew through a cardboard box so it is not recommended for a long transport. Animals can easily escape from your hands, jacket or an open bucket and these methods of transportation are stressful so are not recommended.

398. True or False. Palpating muscle mass is as good a method of determining weight and body condition as actually weighing the animal.

Answer: False. Accurate weight is the starting point to determine condition and develop a treatment plan. It is important to weigh a rehabilitating animal regularly to be sure they are gaining weight. Weight gain is a sign of proper recovery.

- 399. Accurate body weights are necessary in determining which of the following?
 - a. fluids for replacement or maintenance
 - b. caloric requirements
 - c. proper growth or maintenance
 - d. all of the above

Answer: d. Accurate weight is the starting point to determine condition and develop a treatment plan. It is important to weigh a rehabilitating animal regularly to be sure they are gaining weight. Weight gain is a sign of proper recovery.

400. True or False. Catchpoles and nets can be useful for catching larger animals.

Answer: True. These tools allow you to quickly subdue the animal from a safe distance.

401. True or False. The proper method for using a catchpole on a large mammal is to encircle the loop around the animal's neck and pick it up.

Answer: False. The proper method for using a catchpole is to encircle the loop around the animal's head and a forelimb. This way you will prevent strangling the animal as you tighten the loop. Proper training and practice with the catchpole is necessary prior to attempting to use it on a wild animal.

402. True or False. Whenever possible, stress should be avoided while handling and examining an animal for medical problems.

Answer: True. Doing too much, too quickly can cause more stress and possible death to the animal.

403. True or False. It is not necessary to perform a routine physical exam on an animal if there are no obvious problems.

Answer: False. Any wild animal which can be captured easily by a person is most likely in a weak condition. Just because there are no obvious wounds does not mean this animal is healthy. Medical problems with subtle signs may be discovered by thorough physical examinations.

404. True or False. A snake preparing to shed its skin may be easily injured, or become stressed, during handling.

Answer: True. Avoid handling snakes when they are preparing to shed.

- 405. The term for excessive elevation of body temperature characterized by panting, increased respiratory and heart rates is called:
 - a. anemia
 - b. hypothermia
 - c. hyperthermia
 - d. acidosis

Answer: c. Hyperthermia is the increase in body temperature which causes overheating of the animal. Hypothermia is the opposite which produces a decrease in the body temperature. Anemia is a decrease of red blood cells. Acidosis is an increased acidity in the animal's blood.

406. True or False. It is required that licensed wildlife rehabilitators have a cooperating veterinarian who is willing to work with them.

Answer: True. This is part of the license requirements as well as good practice. It is important to develop a good relationship with your veterinarian.

- 407. Excessive heat loss and decrease in body temperature characterized by shivering, puffed up feathers or fur and extremities cold to the touch is called:
 - a. hyperthermia
 - b anemia
 - c. acidosis
 - d. hypothermia

Answer: d. Hypothermia produces a decrease in the body temperature. Hyperthermia is the increase in body temperature which causes overheating of the animal. Anemia is a decrease of red blood cells. Acidosis is an increased acidity in the animal's blood.

- 408. Open mouth breathing and panting can be signs of:
 - a. hypothermia, stress, and stability
 - b. hyperthermia and stress
 - c. hypothermia and stability
 - d. a normal, stable animal

Answer: b. A normal stable animal will not be overheated, breathing with its mouth open, or stressed.

409. True or False. In a mammal, pulling up several inches of skin along the mid-back and judging the time taken for it to return into place, is a useful test for dehydration.

Answer: True. To determine dehydration, pinch an area of loose skin along the mid-back. Once released, it should return to its normal position in 2-3 seconds. If it remains standing up, the animal is dehydrated. Adequate hydration is necessary for normal skin turgor (tension) and elasticity. Skin turgor varies somewhat with the age of the animal. The older adults and infants tend to have slower return to normal.

410. True or False. You may restrict a bird's ability to breathe by holding it too tightly around the chest.

Answer: True. Birds do not have a diaphragm muscle to assist in respiration. They depend primarily on movement of the chest wall for inhalation and expiration of air. If movement of the chest wall is restricted by holding them too tightly, they will not be able to breathe properly and may die.

411. True or False. Vultures, cormorants, herons and bitterns often regurgitate when frightened.

Answer: True. When restraining, it is best to keep the bird's head pointed away from yourself and others.

- 412. You receive an injured turkey vulture. While conducting an examination, the bird vomits a foul smelling material. The bird:
 - a. is using a natural defense mechanism
 - b. has ingested a poison and should receive supportive treatment
 - c. has eaten spoiled food and may have botulism
 - d. has avian flu which is a reportable disease

Answer: a. Vultures often feed on partially decomposed, rotting carcasses. One of their defenses against predators is to regurgitate this smelly material on any animal that disturbs or frightens them. Botulism and avian flu are not associated with vomiting.

- 413. When restraining a new world vulture, such as a turkey vulture, it is important to first gain control of its:
 - a. head
 - b. body
 - c. wings
 - d. feet

Answer: a. Unlike birds of prey that use their feet to defend themselves, new world vultures use their beaks to bite

X. First aid and triage for wildlife

- 414. Often the best action to take when an animal is first brought in is to:
 - a. begin feeding it solid foods and water immediately
 - b. do a thorough physical exam right away
 - c. transport it to a cooperating veterinarian immediately
 - d. if no life-threatening conditions exist, leave it alone for a while in a quiet, dark, warm place

Answer: d. Examining, feeding or transporting an animal to the cooperating veterinarian immediately will only add to the stress of the animal. It may contribute or aid in the development of a condition.

- 415. One problem presented commonly to the licensed wildlife rehabilitator, which has a very poor prognosis of recovery, is a mammal with a broken back. Characteristic signs, which may indicate its condition, include:
 - a. loss of the ability to move the tail
 - b. loss of normal tone or movement of the anal sphincter
 - c. inability to move the hind legs
 - d. all of the above

Answer: d. Broken backs are seen commonly with severe traumatic injury. Signs include inability to move the hind limbs, inability to control urination and defecation, flaccid anal sphincter and flaccid tail. On occasion, you may be able to feel the misalignment of the spinal column. When there is no purposeful movement in the hind legs, the chances for recovery are slight, even though reflexes may be present in the limbs. Cooperating veterinarians often treat these cases with high doses of corticosteroids and cage rest, but if no improvement is seen within 1-2 days then it is unlikely the animal will recover. The spine can be fractured and still have response in the rear legs. Movement does not mean there is no spinal fracture. Radiographs are required to determine the nature of the trauma. Euthanasia may be the most humane choice.

416. True or False. Shock, severe dehydration, severe emaciation, blood loss, and fluid loss are life-threatening conditions and should be treated immediately.

Answer: True. All of these conditions require specific treatments to ensure survival of the animal. Please consult your cooperating veterinarian when treating for these conditions for the first time.

417. Injuries and conditions considered emergencies include shock, active hemorrhaging and compound fractures. Signs which help you to recognize if an animal is in shock include:

- a. severe, watery diarrhea
- b. rapid, shallow breathing
- c. weak pulse and pale mucous membranes
- d. b and c

Answer: d. Shock is a condition, which may occur due to trauma, extreme stress, acute blood loss or internal hemorrhaging. Clinical signs include rapid, shallow respiration, pale mucous membranes, weak but rapid pulse, subnormal body temperature, and some level of unconsciousness. Treatment involves slowly warming the animal to a normal body temperature, giving intravenous or subcutaneous fluids, and sometimes antibiotics. Consult your cooperating veterinarian.

418. True or False. An animal is admitted with a fractured leg and is in shock. The fracture should be treated first and then the state of shock should be controlled.

Answer: False. Shock is a state of decreased blood flow often brought about by loss of blood or fluids. Decreased circulation to vital organs such as the heart, brain and kidneys can cause permanent damage and lead quickly to death. Any active bleeding will contribute to the state of shock and should be controlled immediately. The animal must then be treated for shock before any other therapy is begun. Once the animal's condition has been stabilized, any wounds or fractures can be treated.

- 419. When presented with distressed wildlife, the first order of business is to:
 - a. call the NYSDEC
 - b. give the animal food
 - c. euthanize the animal
 - d. identify the species

Answer: d. You are required to notify the Special Licenses unit of the NYSDEC if this is an endangered or threatened species.

420. True or False. If a licensed wildlife rehabilitator is unsure of an animal's condition, a cooperating veterinarian should be consulted.

Answer: True. Always consult with your veterinarian if you are unsure of a situation.

421. True or False. If a nestling bird has been out of its nest for some time and has become chilled, the first thing to do is warm it.

Answer: True. Most individuals are often compelled to feed an animal first, but this could lead to gastrointestinal problems or death.

422. True or False. An opossum bleeding freely from a front paw should have a tourniquet applied near its elbow.

Answer: False. Do not use a tourniquet. It may result in loss of the limb. In most cases pressure applied directly to the wound (with sterile gauze) is sufficient to stop

bleeding. Gloves must be worn at all times and the animal should be brought to the cooperating veterinarian as soon as possible.

423. True or False. Dehydration in animals can occur due to vomiting, blood loss or diarrhea.

Answer: True. In an emergency, Pedialyte can be used to replace lost fluids. Other products to have on hand are Lactated Ringers (sterile and non-expired), Fox Valley electrolyte solution, Emeraid (avian product) and should be available through your cooperating veterinarian or specialty stores.

424. True or False. Fluid therapy is an indispensable link in the treatment of critically ill animals.

Answer: True. It is advised that all newly licensed wildlife rehabilitators take a class on fluid therapy or consult their cooperating veterinarians. Classes are available each year at the annual NYSWRC seminar.

425. True or False. In dehydrated animals, the goal of fluid therapy is to replace the fluid deficit, provide maintenance fluid intake during this period, and compensate for any losses.

Answer: True. For beginners, a good reference on fluid therapy is the NWRA Principles of Wildlife Rehabilitation.

426. True or False. Fluid therapy is one of the most important treatments for a licensed wildlife rehabilitator to know.

Answer: True. Classes are offered at the NYSWRC annual seminar. Practice is important to insure the correct techniques are used in each situation.

- 427. What is the first step in caring for an emaciated animal?
 - a. feed it solid food and administer antibiotics
 - b. feed it canned dog food only
 - c. give it large volumes of sugar water
 - d. rehydrate and then feed it a diet consisting of basic elements that require little energy for digestion

Answer: d. Immediately feeding an emaciated animal may result in death to the animal. Digesting the food may take all the life-sustaining energy that the animal has in reserve for survival. The animal should also be evaluated as to the level of emaciation to determine if it would be a candidate for rehabilitation. Euthanasia may be the more humane alternative.

428. True or False. The rate of an animal's recuperation is related to its psychological well-being.

Answer: True. If a wildlife patient does not feel secure in its environment it will be in a continuous state of underlying stress which will reduce the rate of recovery and release for the animal.

429. In medical terminology, "SID" means:

- a. once daily
- b. twice daily
- c. three times daily
- d. four times daily

Answer: a. It is important to understand medical terminology so that you can correctly follow your cooperating veterinarian's advice.

430. True or False. Licensed wildlife rehabilitators should seek professional assistance in identifying disease.

Answer: True. Improper diagnosis or treatments of diseases may result in death, contamination of the facility and equipment and spread the disease to other patients, humans and domestic animals.

431. True or False. An animal should be in stable condition before radiographs, anesthesia or surgery is considered.

Answer: True. An animal may decease under any of these situations because of stress to the body systems.

- 432. In medical terminology "q3d" means to administer medications:
 - a. orally
 - b. every three hours
 - c. once every three days
 - d. a and b

Answer: c. It is important to understand medical terminology so you administer the correct dosage. If you don't understand a prescription, ask your cooperating veterinarian.

- 433. In medical terminology "SQ" means to administer:
 - a. injection under the skin
 - b. injection intravenously
 - c. medication periodically
 - d. medication by mouth

Answer: a. SQ is short for subcutaneous and means to administer the injection under the skin.

434. True or False. Injured reptiles should be kept cool to facilitate recovery.

Answer: False. Because reptiles are cold-blooded animals, the most important aspect of reptile care is housing them at warm temperatures. Colder body temperatures will slow metabolic processes in reptiles dramatically and may cause anorexia (lack of appetite), poor digestion and decreased functioning of the immune system.

435. True or False. Although cooperating veterinarians should see animals with fractures as soon as possible, licensed wildlife rehabilitators may have to immobilize a limb prior to seeking assistance to prevent further damage.

Answer: True. Care should be taken on the type and size of the splint or bandage. You do not want to add too much extra weight to a fractured limb. Caution should be taken with specific species, such as larger mammals and birds of prey, because some species will chew their limb off to "escape" from the perceived trapping of the limb. If an animal becomes distressed from the treatment, leave the injury alone until you reach your cooperating veterinarian.

- 436. What is the first priority upon receiving a young sparrow, which is poorly feathered and has been out of its nest for some time?
 - a. feed it immediately
 - b. place it in a cage with other young birds
 - c. warm it to its normal body temperature
 - d. all of the above

Answer: c. This bird needs to be warmed first. Orphaned birds or mammals without feathers or fur cannot control their body temperature and will become chilled easily. Several approaches to warming include use of incubators, a heating pad, hot water bottle or submerging the body carefully in warm water. If using a heating pad, do not place the animal directly on top of it. Even on a low setting, burns may occur because the bird may be too weak to move from the pad. Circulating water-heating pads are more efficient and safer to use. Avoid overheating.

- 437. Which of the following conditions are best treated with veterinary assistance?
 - a. an unknown Illness
 - b. an illness requiring prescribed antibiotic therapy
 - c. fractures with exposed bone
 - d. all of the above

Answer: d. Remember, the wildlife rehabilitation license does not train nor license you to practice veterinary medicine.

- 438. A young rabbit, attacked by a cat, has a two inch tear through the skin in the back of its right thigh. The wound is jagged and contaminated with debris. Provided that the animal is stable, you should first:
 - a. rinse the wound thoroughly with lots of sterile saline or sterile water
 - b. wash the wound vigorously with a lot of soap and water
 - c. immediately begin oral antibiotics
 - d. bandage the leg and place the rabbit in a quiet place

Answer: a. When presented with any contaminated wound, the first step is to clean it well by flushing it with large volumes of sterile saline or sterile water. It is important

not to use soap or detergent, which can be destructive to sensitive tissues. An antiseptic solution like Betadine, Nolvasan or Chlorahexidine can be used, when diluted. When unavailable though, plain sterile saline or sterile water will be adequate. It is necessary to use antibiotics in animals with cat-bite wounds. However, rabbits and rodents are especially sensitive to certain antibiotics, because their digestive system consists of natural flora bacteria, which will also be killed by the antibiotics. Therefore, you should consult a cooperating veterinarian if antibiotics are needed.

XI. Wound management and specific medical problems

439. True or False. In captivity, beavers are easily stressed.

Answer: True. Stress can be limited by providing beavers with a constant water source to swim in, branches to build with, natural foods, and companionship. Even the smells from their natural foods and the opportunity to swim and play as they would in the wild are beneficial in reducing their stress. Beavers rarely do well in large facilities where there are a lot of care givers and much activity. Babies need stability, routine, and a surrogate parent that they can feel safe with. They thrive on bonding with their surrogate parent.

440. True or False. Often, when beavers come in to rehabilitation facilities, lumps under their fur can be felt on their rear legs and from the middle of their backs to the base of their tails.

Answer: True. Beavers are capable of inflicting serious, even fatal, bite wounds to each other. On the surface the deep wounds heal rapidly. But underneath, the wound abscesses. When examining the beaver, the abscesses feel like hard lumps under the fur. The abscesses open easily when a beaver is allowed to swim in luke-warm water for frequent 20 minute periods. When the abscesses open, the discharge is a white Crisco-type substance. Confer with your cooperating veterinarian and remember to remind him/her that penicillin is not recommended with beavers. Keep in mind though, not all wounds are necessarily from bites.

441. True or False. Antibiotics should be used with caution in rodents and rabbits. Many antibiotics, like penicillin, are too harsh on their gut flora.

Answer: True. Beavers have a very delicate digestive system that can easily get out of balance causing diarrhea and the inability to properly digest woody vegetation. Beavers are hind gut fermenters. They have a caecum which is very large and has a volume twice the size of the stomach. Beavers frequently eat their own feces, thereby increasing the amount of nutrients they extract from their food.

442. True or False. Once a turtle's shell has been cracked, it cannot be repaired and it must be euthanized.

Answer: False. There are several good procedures and techniques for repairing turtle shells. Hands-on courses are valuable for learning this specialized skill.

443. True or False. Cheesy, proliferative lesions in the mouth of a raptor requires microscopic diagnosis to confirm trichomoniasis.

Answer: True. Trichomoniasis is an infection of animals caused by a parasitic protozoans trichomonads. Trichomonas gallinae is a protozoan organism that is commonly found in the mouth, throat, gastro-intestinal tract and upper respiratory tract of pigeons, doves, and raptors(birds of prey)that eat these species of birds. This disease condition is termed trichomoniasis by medical professionals. To bird

enthusiasts, the Trichomonas disease condition is also known by such names as "trich" (said like 'try-k'), "Canker" (pigeons and doves) or "Frounce" (raptors). (this is taken from the website (www.pet-informed-veterinary-advice-online.com). Symptoms include loss of appetite, inability to swallow, depression, weakness, crop stasis, and large caseous lesions in the mouth and crop.

444. True or False. Candidiasis is found in the esophagus and crop of birds and is characterized by raised patch of necrotic tissue, which has a foul odor.

Answer: True. Candidiasis infections can affect all birds, and involve an overgrowth of yeasts that are normally found in a bird's digestive system. Common symptoms of Candida infections include white lesions in and around the mouth and throat, vomiting and appetite loss, and a crop that is slow to empty. Most Candida infections are successfully treated using antifungal medications (http://birds.about.com/od/birdhealth/tp/commondiseases.htm).

- 445. A red fox that has been hit by a car is brought to you. It is unable to support weight on its right front leg, though there are no open wounds visible. Upon further examination, you notice a swelling in the middle of the leg. You believe this fox has a mid-shaft fracture of its radius ulna. Proper management of this type of injury includes:
 - a. placing the fox in a large cage in a quiet location to allow it to recover
 - b. applying a splint from the joint above to the joint below the fracture site then contacting a cooperating veterinarian
 - c. applying a small bandage directly around the site of the fracture.
 - d. beginning oral antibiotics for two to three days

Answer: b. This type of fracture is termed a "closed" fracture because there is no break in the skin to allow contamination of the fracture fragments by debris or bacteria. In the management of any fracture, immobilization of the limb is important to prevent further damage at the fracture site. Closed fractures sometimes may be managed just with a splint or may require surgical placement of a pin within the bones. Until a veterinarian can be contacted, stabilization of the limb will prevent further damage. Caution should be taken with specific species, such as larger mammals and birds of prey) because some species will chew their limb off to "escape" from the perceived trapping of the limb. If an animal becomes distressed from the treatment, leave the injury alone until you reach your cooperating veterinarian.

446. True or False. Candidiasis may result from long-term antibiotic therapy.

Answer: True. Antibiotic treatments often upset the bacterial/fungal balance in the body by also killing the good natural flora, giving the candidiasis a chance to increase in population causing gastrointestinal difficulties.

447. A red fox was brought to you with a mid-shaft fracture with a large, old wound and a dry fragment of bone protruding from it, which of the following should you do?

- a. Apply some topical antibiotics to the wound, wrap the leg and begin oral antibiotics for two or three days.
- b. Flush the wound well with saline, cover it with a bandage then try to apply a splint to stabilize the fracture.
- c. Try to sterilize the wound by flushing it with alcohol then apply a splint to the leg to stabilize the fracture.
- d. Call your veterinarian. This fracture may not be repairable, and it may be necessary to humanely euthanize the fox.

Answer: d. This is not a recent fracture, so this fox needs to be seen by a veterinarian as soon as possible. Do not attempt to provide treatment, such as applying a bandage or cleaning a wound, as it will further stress the animal.

448. True or False. An experienced licensed wildlife rehabilitator can distinguish between trichomoniasis and candidiasis with casual visual examination.

Answer: False. Trichomoniasis is a protozoal parasite (Trichomonas gallinae) which may produce excessive salivation and caseous lesions in the mouth and throat. Most commonly it affects pigeons and doves but may be transmitted to raptors when they eat infected prey. Candidiasis is a fungal disease, which can produce similar lesions in the mouth, esophagus and crop. Candida infections are often associated with birds given long-term antibiotic therapy or suffering from a lack of vitamin A. Diagnosis of these diseases is based on microscopic examination of material obtained by a throat swab.

- 449. A local resident brings you a red-winged blackbird which is unable to fly. Upon examination, you feel what seems to be a minor fracture in the middle of the radius and ulna. The bird is alert and in good weight, you decide to:
 - a. apply a tape splint and seek help from a Federally Licensed Rehabilitator
 - b. euthanize the bird because it will never be able to fly again
 - c. place the bird in a cage and allow the wing to hang freely until it is healed
 - d. to manipulate the wing vigorously to determine its range of motion

Answer: a. Unless you hold a federal license, the bird must be brought to a correctly Licensed Wildlife Rehabilitator. As long as it can be determined that the wing bones are in good alignment, this type of injury usually will heal with adequate immobilization of the wing. It can be taped gently in a flexed position and anchored to the body. Don't apply any bandage so tightly it impairs the bird's ability to breathe normally. The splint should be examined daily for any signs of problems such as swelling, tissue abrasions or impaired circulation. In larger birds such as raptors, a splint might not be adequate and surgical repair could be necessary.

450. True or False. Flea powder for use in dogs is too toxic for use in small mammals.

Answer: True. Kitten flea powder or spray is the preferred product as its concentration of pyrethrin content is lower. Avian mite spray is even less toxic and can be used on mammals. Try to use the lowest concentration of pyrethrin or permethrin.

451. True or False. Animals suffering from diarrhea can remain on solid foods as long as they receive supplemental fluids.

Answer: False. For any animal with diarrhea, it is best to discontinue feeding for 12-24 hours which allows the gastrointestinal tract to rest and heal. Supplemental fluids, either orally or via another route, are often required to prevent dehydration.

452. Diarrhea can indicate:

- a. intestinal infection
- b. stress
- c. improper diet
- d. all of the above

Answer: d. Diarrhea is a clinical sign or symptom of many different gastrointestinal conditions, including improper diet and parasites. Without further information from a physical exam or laboratory tests, distinguishing between the causes will be difficult.

453. True or False. Addition of antibiotics to the drinking water is an acceptable way to medicate many species.

Answer: False. This method has several problems such as inaccuracy in doses, decreased efficacy in exposure to water and air, and the fact that many sick animals don't drink much. It is always preferable to give medications directly to the animal either orally or by injection.

XII. Environmental Toxicology

- 454. Which of the following signs may be seen in animals suffering from pesticide poisoning?
 - a. convulsions
 - b. respiratory difficulty
 - c. lack of coordination or paralysis
 - d. all of the above

Answer: d. The clinical signs seen in animals exposed to environmental pesticides are very non-specific. Lack of coordination, weakness, diarrhea, respiratory distress, tremors, paralysis and convulsions may be seen in a variety of conditions including trauma, viral, parasitic and bacterial diseases. The history taken on this animal becomes extremely important in deciding on the most likely diagnosis. There are few specific diagnostic tests available for living animals to diagnose poisonings. Upon necropsy, the absence of other obvious causes of death may suggest the possibility of exposure to a toxin. Diagnosis of such a condition should be done by a veterinarian.

455. True or False. Lead poisoning is always detectable from an x-ray.

Answer: False. Blood tests or liver biopsies may be required.

456. True or False. Waterfowl may get lead poisoning by ingesting shotgun pellets that are in marshy areas where they forage for food.

Answer: True. As few as one or two lead pellets can be lethal to a duck, goose, loon or swan when ingested. They can also be effected when they survive being shot with lead pellets and should be treated by your cooperating veterinarian. Lead shot is still used by some mammal hunters.

- 457. To decontaminate an oil-covered bird, you should:
 - a. wash the bird well with cold water and a mild soap like Ivory
 - b. wash the bird with 104°F water and Dawn dishwashing detergent
 - c. rinse the bird with turpentine before washing with soap and water
 - d. rinse the bird thoroughly with warm water alone

Answer: b. Good, basic references for the treatment of oiled animals are found in Dr. Erica Miller's oil spill protocol in the NWRA Principles book.

458. True or False. Mineral spirits are a good washing agent for oil contaminated birds.

Answer: False. Mineral spirits would create further damage to the feathers. The state and federally licensed wildlife rehabilitator must know the proper washing protocol (using Dawn detergent). Workshops are available to receive oil spill response training through Tri-State Bird Rescue & Research.

459. True or False. A pigeon presenting neurological symptoms, like eye twitching and tremors, should also be examined for possible poisoning:

Answer: True. If a pigeon shows these symptoms and has a full crop of corn, there is a possibility that the pigeon has been poisoned and needs to see a veterinarian as soon as possible. Corn is often treated with a poison to attract and eradicate pigeons.

- 460. The best way to remove a sticky substance from an animal is to:
 - a. rip it off quickly
 - b. cut the feathers or fur
 - c. Coat with KY jelly followed by washing off with Dawn liquid detergent
 - d. Wash off with laundry detergent

Answer: c. Follow the oil spill clean-up protocol developed by Dr. Erica Miller available in the NWRA Principles book. All other methods will result in feather damage and are ineffective.

XIII. Euthanasia

461. True or False. Humane euthanasia is sometimes a necessary part of rehabilitation.

Answer: True. Not all animals can be saved. Euthanasia does not mean you have failed, it means you are ending the animals suffering.

- 462. The best option for disposal of carcasses of animals which have been euthanized by injection of a lethal drug is:
 - a. buried in your yard
 - b. fed to a predatory species
 - c. cremation
 - d. sent to the local dump with other trash

e.

Answer: c. There are several drugs available for euthanasia by injection that can be used by a veterinarian. These drugs can be toxic if eaten. All animals euthanized must be disposed of in a way which ensures they will not be eaten by scavengers.

- 463. In choosing a method of euthanasia, which of the following factors should be considered?
 - a. use of a technique which minimizes stress and pain to the animal
 - b. the experience of the Licensed Wildlife Rehabilitator with the technique
 - c. the degree of safety of the technique to the Licensed Wildlife Rehabilitator
 - d. all of the above

Answer: d. There are numerous methods of euthanasia available. If veterinary support is available, the use of a euthanasia drug should be used. Carbon dioxide (CO2) may be used as an agent of euthanasia in some species. This requires placement of the animal in a tightly sealed container of 100% CO2 vapor. Spinal dislocation should only be used by an experienced licensed wildlife rehabilitator. Spinal dislocation is only used on small animals. Gunshots to the brain should only be performed by those knowledgeable with the technique. Drowning or confinement in an airtight container are both methods which are not considered humane and should not be used. These methods are inconsistent with the American Veterinary Medical Association (AVMA) standards (http://www.avma.org).

- 464. Which of the following would constitute a non-releasable reptile?
 - a. a snapping turtle missing a foot
 - b. a blind painted turtle
 - c. a painted turtle with a small shell fracture
 - d. a painted turtle missing a tail

Answer: b. Blindness if determined permanent will affect the turtle's ability to hunt and survive. All of the other ailments will repair or not affect the turtle.

465. True or False. Acceptable methods of euthanasia for cold-blooded vertebrates include placing them in the freezer.

Answer: False. Techniques of euthanasia must be evaluated carefully before being used in reptiles and amphibians. Both reptiles and amphibians have adaptations, which allow them to survive prolonged periods of oxygen deprivation and exposure to the cold. Techniques, such as the use of CO2 or other inhalation agents, may be inadequate. The only technique currently recommended is to anesthetize the animal and then utilize IV or IC euthanasia drugs.

- 466. You have been caring for a young rabbit which has had severe diarrhea for several days. The fecal examination was negative. Eventually the rabbit dies. You may dispose of its body by:
 - a. deep burial
 - b. incineration
 - c. feeding to a predatory species
 - d. a or b

Answer: d. A single fecal examination is not definitive evidence of a lack of parasites in this animal. The eggs passed in the stool with parasitic infections may be shed sporadically, so they may not be seen in a single fecal examination. Repeated fecal exams are necessary to accurately eliminate parasites as the cause of the illness. Other possible infectious agents might be responsible for this rabbit's diarrhea. Therefore it is preferable to dispose of the carcass as if it carried a contagious disease. Do not dispose of the carcass in a location where it may be eaten by scavengers.

- 467. When deciding to continue treatment or to euthanize an animal, facts to consider should include:
 - a. the availability of an effective and humane course of treatment
 - b. once treatment is completed, will the animal be able to re-enter the wild with a high chance of survival
 - c. if an animal is not releasable, is there justification for keeping it in captivity other than just to avoid euthanasia
 - d. all of the above

Answer: d. The decision of euthanasia is a difficult one. Experience will enhance your ability to make the correct decision. Euthanasia should be viewed as a painless way to end suffering. If an animal cannot function normally in its natural habitat, it will not survive.

XIV. Factors in release of rehabilitated animals

468. True or False. One good way to release young gray squirrels is to open the door of their outdoor cage and let them come and go as they wish, while continuing to provide food and water in the cage until they no longer return. This is referred to as a soft release.

Answer: True. You must provide food and water until the animals have left. If you are unable to release them on your property you can also release off site but should still use a soft release cage and must visit it daily to refill food and water and ensure they are adapting well to the environment.

- 469. One of the most important factors to the success of releasing a rehabilitated animal is:
 - a. releasing the animal in its natural habitat
 - b. releasing the animal on a weekday
 - c. releasing all your rehabilitated animals in the same place
 - d. both a and b

Answer: a. Natural habitat is the most important factor to consider when planning to release an animal. The day of the week is not important, but you should avoid holidays and must consider the weather for the next three days. Too many animals released in the same area encourages fighting, depletion of resources and rapid spread of disease.

470. True or False. Post mortem examinations can be a valuable tool in good rehabilitation.

Answer: True. Classes in the anatomy of wildlife are helpful and skills can be learned to aid in rehabilitating wildlife. Necropsies on animals that have died may help determine the cause of death. Also, skills such as tube-feeding and giving injections can be practiced on carcasses. These topics are taught during the annual NYSWRC seminar.

471. True or False. Releasing healthy, psychologically adjusted animals back into suitable habitats is the major goal of rehabilitation.

Answer: True. Release is the primary reason for wildlife rehabilitation. The animals should be in excellent physical and psychological health, capable of interacting with their own species, have a healthy fear of humans and be able to seek out and obtain food and shelter. All lead to their ability to survive.

472. True or False. Normal body weight is a factor in considering the release of an animal.

Answer: True. An animal must be strong and physically fit to survive in the wild. Normal body weight is important so the animal has reserves for it to live on while acclimating to its new environment.

473. True or False. As long as an animal is healthy, it does not matter what time of day it is released.

Answer: False. It would be a mistake to release a nocturnal animal in the middle of the day. A diurnal (dawn and dusk) animal should not be released in the middle of the night. It should be released during the day so that it has plenty of time to find food and shelter.

474. True or False. An animal needs to be acclimated to the outdoors before it can be released.

Answer: True. Acclimation to the outdoors gives the animal its greatest chance of survival and is necessary prior to release.

- 475. A nocturnal mammal or bird should be released:
 - a. during the day
 - b. in the middle of the night
 - c. at dusk
 - d. the time of day is not important

Answer: c. A nocturnal mammal or bird should be released at dusk so it has the entire evening to adjust to its surroundings. A nocturnal animal is adapted to be out at night and rest or hide during the day.

476. True or False. Soft release of young animals is the preferable method of release.

Answer: True. Soft release simulates a more natural decrease in dependence on humans and provides food and shelter while learning to survive in the natural environment.

477. True or False. The carrying capacity of an area for the species being released is not an important consideration.

Answer: False. Carrying capacity is the term used to describe the optimum size of a wildlife population in a given area. If too many animals of a given species are present, they may damage the habitat, thus making it harder for themselves and other species to survive. This is regularly seen in suburban parks with too many deer which destroy much of the vegetation.

478. True or False. Knowledge of an animal's natural history and resource needs are important in determining release sites.

Answer: True. Ideally the licensed wildlife rehabilitator will release the animal at the site at which it was found. If the animal is an adult it will have established territories and may have a mate or family waiting for it. This is not always possible or appropriate, but should be considered after evaluating the safety of the location and its ability to provide adequate food and shelter.

479. True or False. Gray squirrels should be released early enough in the fall to cache (hide) food for the winter and to find shelter.

Answer: True. Gray squirrels have two litters each year. Spring babies will be released by mid-summer, and summer babies should be released prior to late fall. In northern locations over wintering in an outdoor squirrel cage may be an option.

480. True or False. A wild animal raised as a pet can be returned to the wild successfully once it gets too aggressive. It will instinctively know what to do to survive.

Answer: False. Although release may be possible in some circumstances, it will probably take considerable time for you to help this animal to develop its survival skills. They may never regain their fear of humans which makes them dangerous to release, and euthanasia is often the only Wild animals must never be kept as pets!

481. True or False. Young birds and animals can be released as soon as they can eat adult food. They learn hunting and food-gathering skills on their own.

Answer: False. There is much more to survival than eating. Young animals learn survival skills by following their parents. It is the responsibility of the licensed wildlife rehabilitator to mimic this training during pre-release phase of rehabilitation. Instinct is there, but training is also necessary to provide opportunities to stimulate the animals' natural behaviors.

- 482. Habitat selection for release should meet which of the following criteria?
 - a. food and water, cover or shelter, close proximity to humans
 - b. cover or shelter, spatial needs, close proximity to humans
 - c. food and water, cover or shelter, spatial needs
 - d. food and water, spatial needs, close proximity to humans

Answer: c. Animals should not be released in close proximity to humans. Natural habitat is the most important factor to consider when planning to release an animal. The day of the week is not important, but you should avoid holidays and must consider the weather for the next three days. Too many animals released in the same area encourages fighting, depletion of resources and rapid spread of disease.

- 483. Which of the following should help a licensed wildlife rehabilitator determine if an animal is ready for release?
 - a. body weight
 - b. recognition of native food
 - c. predator recognition and avoidance
 - d. all of the above

Answer: d. All of these are determining factors in survival of the animal prior to release.

484. When it is determined that an individual animal is incapable of being released successfully to the wild, one could:

- a. release it anyway and give it a chance
- b. place it with a licensed educational program
- c. euthanize it
- d. b and c
- Answer: d. Releasing an animal anyway is considered to be morally unacceptable if you are sure that the animal cannot survive on its own. Placing it in a licensed educational program is only appropriate if the animal has the correct disposition to live in captivity and proper permits and licenses are in place. Euthanizing the animal may be the only option if it is not suitable for life in captivity.
- 485. True or False. It is important to release a turtle close to where it was found.
 - Answer: True. Introducing a turtle to a different pond could spread disease to other populations. Turtles know their area and territory well. They know where to find food and good places for hibernation.
- 486. True or False. A woman gives you a Painted Turtle she has had for several years. She had removed it from the creek down the street. It is okay to release the turtle at a local pond, as these turtles are native to NYS.
 - Answer: False. You must consider how long this turtle has been out of the wild. Turtles kept in captivity are at risk of developing salmonella and other contagious diseases. Releasing turtles who may be carriers could expose wild turtle populations to diseases. Turtles should be seen by your cooperating veterinarian or reptile expert prior to release.
- 487. What behavioral considerations are important for an animal to exhibit before it can be released?
 - a. competitive foraging behavior
 - b. species recognition and socialization with its own kind
 - c. predator avoidance
 - d. all of the above
 - Answer: d. Release is the primary reason for wildlife rehabilitation. The animals should be in excellent physical and psychological health, capable of interacting with their own species, have a healthy fear of humans and be able to seek out and obtain food and shelter and avoid predators. All lead to their ability to survive.

XV. Education of the Public

488. True or False. Any non-releasable animal makes a good candidate as an educational animal.

Answer: False. Most animals do not live well in captivity. It is important that the public understand the role of educational ambassadors and that life in captivity is never as good as it is in the wild.

489. True or False. If you cannot find it in yourself to euthanize an animal, it is OK to keep it for education.

Answer: False. Educational animals should not feel stressed or anxious in the presence of humans. Education animals are regulated by several agencies, and permits are required prior to their acquisition. Death is often a better alternative to a poor quality of life in captivity. If you can't find it in yourself to perform the euthanasia seek the help of another licensed wildlife rehabilitator or your cooperating veterinarian.

490. True or False. If I am licensed to present educational programs in New York State, I can present in neighboring states.

Answer: False. Other states have other requirements and often require their own state license in addition to an import permit.

491. True or False. If you have a very docile educational animal, it is okay to allow the public to touch it, as they would not ordinarily be able to do so in the wild.

Answer: False. It is never acceptable to have the public touch a native educational animal. You are liable for injuries and could potentially be sued or go to jail. Use the opportunity to explain stress to the public so they will understand why they can't touch the animal.

492. True or False. If I want to present educational programs, I will need additional insurance.

Answer: True. Insurance is a must. Most schools require \$1,000,000.00 worth of insurance and a certificate to prove it.

493. True or False. Educational animals do not require as much room or exercise as a patient does. I can keep them in cages in my basement.

Answer: False. Long-term care requires adequate room for movement, the ability to practice natural behaviors, proper ventilation, exposure to UV light and enrichment. Basements are often damp which make them prone to mold spores and may leak radon gases. There are caging requirements that must be met to hold captive educational animals.

494. When educating small children, a great tool to use is:

- a. puppets
- b. books
- c. pictures
- d. all of the above

Answer: d. When educating children you are only limited by your imagination

495. True or False. PowerPoint presentations are good ways to educate the public.

Answer: True, power points allow you to share many images with the public. It could be used alone or in conjunction with live animals.

496. An educator must:

- a. Present a good image of a wildlife professional
- b. Have live animals
- c. Have proper licensing
- d. a and c

Answer: d. As an educator you have a responsibility to act in a professional manor. You should be prepared and have a clear message. Licenses should be up to date. Even if you are not using live animals, permits may be required for such items as nests, eggs and body parts or feathers.

497. True or False. It is a good idea to let the public touch a taxidermy animal specimen during an educational program.

Answer: False. To let someone touch a persevered specimen is bad. Older specimens were preserved with arsenic and could be a danger to the public and touching mounts reduces their longevity. Feathers and fur fall out and the mount can be ruined.