



Washington  
Department of  
**FISH and  
WILDLIFE**

# Wildlife Rehabilitation Manual

By Patricia Thompson



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## INTRODUCTION

Thank you for your interest in wildlife rehabilitation. Before deciding to become a wildlife rehabilitator, please read all the material on the Washington Department of Fish and Wildlife (WDFW) [Wildlife Rehabilitation web page](#). The demands on wildlife rehabilitators are great. It is a time consuming and expensive profession and you will be donating personal time and resources. One must be very dedicated to be a successful wildlife rehabilitator.

All native wild birds, mammals, reptiles, and amphibians are protected by Federal and/or Washington State laws and regulations (RCW's and WAC's). Therefore, wild animals may not be held in captivity without the proper permits. A Wildlife Rehabilitation Permit authorizes a person to temporarily possess injured, ill, or orphaned wildlife for the purpose of rehabilitation and release back to the wild. Individuals must meet several requirements to earn this permit. Those who work with native migratory birds must also have a US Fish and Wildlife Service Migratory Bird Rehabilitation Permit. It is the permittee's responsibility to comply with all federal laws and regulations, and to ensure that his or her sub-permittees do the same. Licensing ensures high standards of practice and that all persons engaged in wildlife rehabilitation are trained, qualified, and provide humane care and housing for wildlife in their custody.

Completing 1,000 hours of volunteering, working, and/or training in wildlife rehabilitation is required for your permit. This is the equivalent of about six months of full time or two and a half years of one day/week, such as volunteering every Saturday. You will also be required to list a sponsoring licensed Washington Wildlife Rehabilitator on your Washington Wildlife Rehabilitation Permit Application. We, therefore, recommend that you start building a relationship with a licensed wildlife rehabilitator or qualified veterinarian now.

After attaining your permit, you must continue your education. Good rehabilitators continue developing their skills forever, no matter what their level of expertise. State, national, and international professional wildlife rehabilitation organizations as well as fellow rehabilitators provide opportunities for continued education and increased skill. National Wildlife Rehabilitators Association (NWRA) and International Wildlife Rehabilitation Council (IWRC) publish newsletters and journals and sponsor conferences. Joining these organizations is essential for rehabilitators to stay current.

A wildlife rehabilitation permit **does not** allow nor authorize a person to be a veterinarian, wildlife biologist, wildlife officer, public-health official, or nuisance animal control officer (someone who, for example, removes raccoons or squirrels from peoples' homes). You may not legally act in any of these capacities. Nevertheless, rehabilitators aid and support all these professions and you must prepare for a complex role within the professional wildlife community.

Lastly, avoid becoming a rehabilitator who maintains their self-image through wildlife rehabilitation and views him- or herself as a "savior" or "trusted companion" of wild animals. Those who pursue wildlife rehabilitation for these reasons usually do more harm than good. Animals in their care often become habituated and tame and have a poor chance of surviving in the wild. This style of rehabilitator gives the public the wrong impression of the free nature of wild animals.

The following presents an overview of wildlife rehabilitation requirements for this profession, and an introduction to the WDFW Wildlife Rehabilitator Exam.

## **WDFW and Wildlife Rehabilitation**

WDFW manages wildlife at the population level rather than the individual level; therefore, rehabilitating individual animals is not in the WDFW management plan. Nevertheless, WDFW recognizes the critical role licensed wildlife rehabilitators play in capturing and caring for sick, injured, and orphaned wildlife in Washington State and acknowledges the value of this profession to the public, therefore WDFW established the Washington Wildlife Rehabilitation Program.

### **Valuable Services to WDFW provided by licensed Wildlife Rehabilitators**

- Decreases Wildlife Biologist and Wildlife Officer workload
- Insures humane and professional care of injured wildlife
- Provides a pool of professional wildlife handlers to help WDFW with wildlife pick-up and emergencies
- Provides data and staff-power for areas of wildlife research and retrospective studies
- Assists in threatened and endangered species recovery
- Assists in disease monitoring and domestic animal protection and public health
- Provides self-regulation and self-enforcement within the wildlife rehabilitator community
- Provides valuable public education

Additionally, there are challenges that must be overcome within the wildlife rehabilitation community for wildlife rehabilitation in Washington to reach its full potential.

- Establish 100% compliance with permitting requirements and conditions to ensure the best care for the animals
- Nurture a positive attitude toward fellow wildlife rehabilitators resulting in cooperative networking and improved services for sick and injured wild animals, and the public
- Greatly reduce the release of non-native wildlife
- Eliminate over-handling, taming, and habituating wildlife at all times
- Eliminate the release of tamed and habituated wildlife

By far the majority of licensed wildlife rehabilitators in this state are professional, highly capable, and willing to assist and collaborate at any time. WDFW believes wildlife rehabilitation services outweigh the concerns, if the concerns are responsibly addressed within the Wildlife Rehabilitation community. If you are to become a Wildlife Rehabilitator, you must be part of the solution and not part of the problems of wildlife rehabilitation.

WDFW does not pay for wildlife rehabilitation, nor is it responsible for any costs incurred by a licensed wildlife rehabilitator. Nevertheless, WDFW offers [Grants to Wildlife Rehabilitators](#) on a biennial basis. Wildlife Rehabilitators may also find it advantageous to incorporate as a 501(c)(3) tax exempt non-profit organization.

### **Preparing for Your Life as a Wildlife Rehabilitator**

Material in this booklet and on our web page is designed to give a brief introduction to what you need to know to become a wildlife rehabilitator. It introduces you to general wildlife rehabilitation, care techniques, and applicable Washington and Federal laws and obligations, but will not go into the detail needed for a successful wildlife rehabilitation career. This booklet **does not** contain enough information, nor should it be used, as your exclusive resource for the exam. To be successful, you will need to read and study materials far beyond the scope of this publication. It is equally and vitally important that you network with licensed Washington wildlife rehabilitators and veterinarians as much as possible and attend wildlife rehabilitation conferences and workshops. You must have six months (1,000 hours) practice with an experienced licensed wildlife rehabilitator to qualify for your WDFW Wildlife Rehabilitation Permit. Educational training may count for a portion of that experience.

### **Study Material**

In addition to the WDFW Wildlife Rehabilitation web page, must-reads are: *The most current editions of the NWRA Principles of Wildlife Rehabilitation, NWRA/ IWRC Minimum Standards for Wildlife Rehabilitation, and Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel*, all listed below. You will need field guides and basic references recommended to you by licensed rehabilitators to augment your knowledge and understanding. A good source of natural history information for some species is the [WDFW Priority Habitats and Species Management Recommendations](#).

### **Exams are given by appointment at WDFW Regional Offices.**

**Please call your Regional Wildlife Rehabilitation Permit Coordinator to schedule an exam time.**

#### **Region 1 – Spokane Valley**

Asotin, Columbia, Ferry, Garfield, Lincoln, Pen Oreille, Spokane, Stevens, Walla Walla, Whitman

(509) 892-1001

#### **Region 2 - Ephrata**

Okanogan, Chelan, Douglas, Grant, Adams

(509) 665-3391

#### **Region 3 - Yakima**

Kittitas, Yakima, Benton, Franklin

(509) 457-9303

#### **Region 4 – Mill Creek**

Whatcom, Skagit, Snohomish, King, Island, San Juan

(425) 775-1311

#### **Region 5 - Vancouver**

Lewis, Wahkiakum, Cowlitz, Clark, Skamania, Klickitat

(360) 906-6722

#### **Region 6 - Montesano**

Clallam, Jefferson, Kitsap, Grays Harbor, Mason, Pierce, Thurston, Pacific

(360) 249-4628

## Study Guides

1. *Principles of Wildlife Rehabilitation: The Essential Guide For Novice and Experienced Rehabilitators*, 2nd Edition. 2002. Adele Moore & Sally Joosten. National Wildlife Rehabilitation Assoc. 667 pp.  
May be purchased at [www.nwrawildlife.org/catalog](http://www.nwrawildlife.org/catalog).
2. *Minimum Standards for Wildlife Rehabilitation* 4th Ed. 2012. Erica A. Miller DVM, Ed. NWRA/IWRC. 116pp.  
May be purchased at <http://theiwrc.org/resources/guidelines-for-wildlife-rehabilitation> or <http://www.nwrawildlife.org/catalog>
3. *Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel*. 2010. National Assoc. of State Public Health Veterinarians, Veterinary Infection Control Committee.  
[www.nasphv.org/Documents/VeterinaryPrecautions.pdf](http://www.nasphv.org/Documents/VeterinaryPrecautions.pdf).
4. *Mammalian Zoonotic Disease Course*  
[http://www.nwhc.usgs.gov/outreach/mammalian\\_zoonotic\\_course.jsp](http://www.nwhc.usgs.gov/outreach/mammalian_zoonotic_course.jsp)
5. *Field Manual of Wildlife Disease – General Field Procedures and Diseases of Birds*  
[http://www.nwhc.usgs.gov/publications/field\\_manual/index.jsp](http://www.nwhc.usgs.gov/publications/field_manual/index.jsp)

THE FOLLOWING ARE FROM **DIFFERENT STATES**; their laws, regulations, and State Threatened, Endangered, and Sensitive Wildlife Lists **WILL NOT APPLY TO WASHINGTON**, but the information on wildlife medicine, diseases, housing, husbandry, etc. will; these are excellent manuals to study:

6. *Study Guide for Prospective Maine Wildlife Rehabilitators & Examination Booklet for Prospective Maine Wildlife Rehabilitators*  
May be downloaded from [www.maine.gov/ifw/wildlife/pdfs/studyguide.pdf](http://www.maine.gov/ifw/wildlife/pdfs/studyguide.pdf) and <http://www.maine.gov/ifw/wildlife/pdfs/testbank.pdf>. The Study Guide contains a good Wildlife Rehabilitation Glossary.
7. *Wildlife Rehabilitation in Wisconsin: An Introduction and Study Guide*  
May be downloaded from <http://dnr.wi.gov/topic/wildlifehabitat/documents/RehabGuide.pdf>
8. *Minnesota Wildlife Rehabilitation Study Guide & Minnesota Wildlife Rehabilitation Examination Study Booklet*  
May be purchased from the Minnesota Bookstore: <http://www.dnr.state.mn.us/eco/nongame/rehabilitation/index.html>. Click on Study guide & exam book at left.

Also see the [International Wildlife Rehabilitation Council literature](#).

## Training

Wildlife rehabilitation is not a hobby. You must complete 1,000 hours of volunteering and training with an established [Licensed Wildlife Rehabilitator](#) before obtaining your permit. Of these 1,000 hours, 500 must be during the spring/summer “baby” season. Approved workshops and classes may count towards your training hours; out-of-state training and volunteering counts if you present valid letters of recommendation from the person or facility for which you worked. Internships in Wildlife Rehabilitation are offered at the larger facilities such as [Blue Mountain Wildlife](#), Pendleton OR; [PAWS Wildlife](#), Lynnwood WA; [West Sound Wildlife Shelter](#), Bainbridge Island, [Sarvey Wildlife Care Center](#), Arlington, or [Wolf Hollow](#), Friday Harbor. Ask about their facilities, reference materials, veterinarians, treatments, protocols, procedures and with whom they network.

Become a member of one or both of the national organizations ([NWRA](#) and [IWRC](#)), read their publications and attend the conferences. Sign up for training courses such as those offered by Washington rehabilitators and by the [International Wildlife Rehabilitation Council](#).

### **Build a Working Relationship with an Established Permittee.**

The rehabilitator with whom you work should be willing to share any and all information with you. Oddly, wildlife rehabilitation can at times be a competitive profession. Each facility is competing for much needed donations and funding. However, if there is one profession that should be cooperative, supportive, and communicative, it is wildlife rehabilitation. First and foremost, the animals should be considered above all. In addition to valuable information and training, networking helps when animals must be transferred to another facility, such as when single orphans need to be placed with others of their own species for appropriate imprinting and behavior development.

Some criteria for selecting an experienced licensed wildlife rehabilitator to train with are:

- You feel compatible in your working relationship;
- They are patient, open, honest, and supportive;
- They are willing to provide quality rehabilitation and training;
- They are accessible and available;
- They are willing to evaluate you and communicate with WDFW;
- They are in good standing with WDFW and US Fish and Wildlife Service;
- They are willing to support you after you obtain your permit; and,
- They frequently network with other licensed wildlife rehabilitators.



## Your Relationship with a Veterinarian

You must already have a principle veterinarian when applying for your permit. This is a requirement of the permit. Your veterinarian is the person who oversees all of your medical procedures. Wildlife rehabilitators may not practice veterinary medicine (such as surgery, disease diagnostics, anesthesiology, etc.) unless they currently hold a Washington State Veterinary Medical License. Wildlife rehabilitators are not trained nor licensed to diagnose and treat animal diseases. Medical or surgical treatments, drug prescription and administration, injections, vaccinations, and anesthesia must only take place under the direction and supervision of a Washington licensed veterinarian.

Ask the veterinarian in what capacity she or he is able to assist you with services such as radiographs, blood work, fecal exams, lab work, surgery, anesthesiology, euthanasia, and carcass disposal. Draw up a written and signed agreement with your veterinarian as to what services will be provided and for what cost if any. You may wish to learn how to perform laboratory work yourself.

### Points to consider in your agreement:

- Goods and services that the veterinarian is willing to provide;
- Goods and services that the veterinarian is willing to provide pro bono;
- Services and supplies for which the veterinarian must charge;
- Diagnostic procedures the veterinarian is willing to perform (radiographs, hematology, etc.) and costs;
- Treatments the veterinarian is willing to perform (prescribe and administer medications, fracture management, surgery, etc.);
- Wildlife species that the veterinarian will and will not work with;
- Wildlife species for which the veterinarian has sufficient medical and care knowledge;
- Types of phone consultation the veterinarian will provide;
- Time availability;
- Willingness to come to your facility;
- Arrangements for bringing
- How wild animals should be brought into the clinic (type of carrier, through a back door, etc.);
- Housing facilities for wild animals at the clinic in order to minimize stress (noise, foot traffic, proximity to predators such as dogs, etc.);
- Follow up care protocols, record keeping and communications; and,
- Protocols and agreements on euthanasia. Agree, in advance, on a process of how you and your veterinarian will make euthanasia decisions. Make sure to address the details of how the process will be carried out including safe disposal of the carcasses.

**Any agreements must abide by the laws and regulations governing the practice of veterinary medicine.**

*Veterinarians may treat wild animals in their clinic short-term (48 hours or until the animal is stabilized) without a wildlife rehabilitation permit. Veterinarians who wish to retain wild animals past that time period must obtain a WDFW Wildlife Rehabilitation Permit.*



## Species Identification

Accurate species identification is crucial for diagnosing diseases and parasites, and for prescribing medications. Treatments, housing, and diets are often species-specific. Some field guides and other natural history books are listed below for your reference. Also consult local colleges and universities and university facilities such as the [UW Burke Museum](#) web site. Birding organizations such as the many Audubon chapters in Washington have good resources. For links to local Audubon Society chapters see: <http://wa.audubon.org/audubon-locations>.

Some species have more than one common name; therefore, knowledge of scientific names is necessary. Diseases are occasionally referenced by species' scientific names. For example, the scientific name for the raccoon is *Procyon lotor*; the scientific name for raccoon roundworm is *Baylisascaris procyonis*.

Consult the references below and ask any licensed wildlife rehabilitator for additional pertinent reference material.



Pygmy rabbit (*Brachylagus idahoensis*)  
Listed as State & Federal Endangered

## Field Guides & Natural History References

- Baicich, P. & Harrison, C. 1997. *A Guide to the Nests, Eggs and Nestlings of North American Birds*, 2nd edition. NY: Academic Press. 347 pp.
- Bell, Brian H., Kennedy, G., & Fisher, C. 2006. *Birds of Washington State*. Lone Pine Publishing. 384pp.
- Benyus, Janine M. 1989. *Field Guide to Wildlife Habitats of the Western United States*. Fireside Publishers. 336 pp.
- Corkran, Charlotte C. and Chris Thoms. 2006. *Amphibians of Oregon, Washington, and British Columbia: A Field Identification Guide*. Lone Pine Publishing. 176 pp.
- Eder, Tamara. 2002. *Mammals of Washington and Oregon*. Lone Pine Publishing. 352 pp
- Erlich, Paul. R., David S. Dobkin, and Darryl Wheye. 1988. *The Birder's Handbook: A Field Guide to the Natural History of North American Birds*. Fireside Publishers. 785 pp.
- Johnson, David H. and Thomas A. O'Neil. 2001. *Wildlife-Habitat Relationships in Oregon and Washington*. Oregon State University Press. 736 pp.
- Martin, A., Zim, H. & Nelson, A. 1951. *American Wildlife and Plants: A Guide to Wildlife Food Habits*. NY: Dover Publications. Available through WRT; also can often be found in used bookstores.
- Maser, Chris. 1998. *Mammals of the Pacific Northwest: From the Coast to the High Cascades*. Oregon State Univ. Press. 406 pp.
- National Audubon Society. 1996. *National Audubon Soc Field Guide to North American Mammals*. Knopf Doubleday Pub. 992 pp.
- Poole, A. & Gill, F. (Eds.) *The Birds of North America*. The Academy of Natural Sciences and The American Ornithologists' Union. The complete series is available at most university libraries.
- Reid, Fiona. 2006. *Peterson Field Guide to Mammals of North America*. Houghton Mifflin Harcourt. 608 pp.
- Sibley, D. A. 2000. *National Audubon Society The Sibley Guide to Birds*. Knopf Doubleday Publishing. 544 pp
- Sibley, D. A. 2003. *The Sibley Field Guide to Birds of Western North American*. Knopf Doubleday Publishing Group. 472pp.
- Sibley, D. A. 2009. *The Sibley Guide to Bird Life and Behavior*. Knopf Doubleday Publishing. 608 pp.

## Recognizing Threatened and Endangered Species.

For a list of animals endangered or threatened in Washington State, as well as federally listed endangered or threatened species see <http://wdfw.wa.gov/conservation/endangered/All/>. You may also view federally listed Washington species on the U. S. Fish and Wildlife Service (USFWS) website at [http://ecos.fws.gov/tess\\_public/pub/stateListingIndividual.jsp?state=WA&status=listed](http://ecos.fws.gov/tess_public/pub/stateListingIndividual.jsp?state=WA&status=listed). Should you receive a member of one of these species, it must be given priority. Your permit requires that you notify the Wildlife Rehabilitation Manager within 24 hours of admitting a threatened or endangered animal. The US Fish and Wildlife Service must also be notified in the case of federally endangered or threatened species. WDFW and US Fish and Wildlife Service must also be notified within 24 hours upon death of the animal.

## Common vs. Rare Species; Native and Non-Native; Nuisance Species.

Many people, particularly biologists, believe that common nuisance animals and introduced species should not be rehabilitated but, rather, should be euthanized. Introduced species are highly competitive and destructive to some of Washington's native wildlife. It is considered by some to be ill-advised to rehabilitate and release, for example, European starlings, house sparrows, or Eastern gray squirrels.

You will undoubtedly face the question of why one species is more important or valuable than another and be forced to choose which you treat and which you do not. Some say that by practicing on common species, one develops skills that can be applied to the rare species. This is a valid argument.

Some of the common urban species such as raccoons become aggressive annoyances, and sometimes dangers, to people and pets. Nuisance Wildlife Control Operators (NWCO) are often called to eliminate these animals, meaning they will be killed. Seriously consider whether you want to rehabilitate animals that may cause trouble and because of that be killed.

WDFW encourages wildlife rehabilitators to develop policies that reflect best practices for native Washington wildlife. The rehabilitation and release of threatened and endangered individuals will have the most positive impact on their populations, simply because there are fewer animals. Conversely, although the rehabilitation and release of common nuisance and non-native individuals may not positively affect their population numbers, the release of many rehabilitated non-native species may have deleterious effects on local native wildlife.

### Threatened and Endangered Species Lists

**Federal** and **State** Threatened and Endangered Species Lists are different.

For the **Washington State** Threatened and Endangered List see: <http://wdfw.wa.gov/conservation/endangered/>.

For the **Federal** Threatened and Endangered Species List see: <http://www.fws.gov/endangered/>

**These lists change when species are added, delisted, or downlisted. It is your responsibility to keep up with these lists.**



Marbled murrelet (*Brachyramphus marmoratus*)  
Listed as State and Federally Threatened

## Transferring animals

**To another facility.** Transfer animals if:

- The disease or injury is beyond your skill level
- Your cages are too small/large or otherwise inappropriate
- Lack of necessary diagnostic and treatment equipment
- The animal, such as young, needs conspecific companionship
- You have received a threatened, endangered, oiled, or a species for which you are not permitted
- You are at capacity

**Across state lines.**

Cervids (deer, elk, and moose) may **NOT** be transported across state borders for rehabilitation. State laws are strict against interstate movement of deer, elk, and moose because of chronic wasting disease (CWD), brucellosis, and tuberculosis. Rabies vector species –bat, skunk, fox, raccoon, and coyote may **not** be transferred into Washington State.

## Preparing for the Exam

The intent of the exam is to test your understanding of wildlife rehabilitation concepts, practices and procedures, the needs and habits of Washington species, and specifics of wildlife care, injury, and disease. Even though you may want to specialize in birds or mammals, you still must take the General Exam with questions on both. We believe this makes a better qualified wildlife rehabilitator. It is likely that you will be put in situations where the public brings you wildlife not in your “specialty” area.

Raptors and large carnivores (brown bear, black bear, cougar, wolf, bobcat, and lynx) are not on the State General Wildlife Rehabilitation Exam. Those wishing to rehabilitate raptors and large carnivores must take the General Exam plus an additional Raptor and/or Large Carnivore Exam and achieve a score of eighty percent (80%) or higher on all in order to pass. You may not rehabilitate these species without the special raptor or large carnivore endorsement. Additional hours of training with these species are required.

The Washington State General Wildlife Rehabilitation Exam consists of 285 multiple-choice, true-false, and vocabulary questions and you will have 90 minutes maximum to take the exam. For sample questions, see Appendix 1. These are real questions on the test. They do not represent everything on the test but serve to acquaint you with the form and layout and how the questions are asked. Answers are provided to these sample questions for study purposes.

### A. Washington Wildlife Ecology and Natural History

Many of the field guides and references listed above provide natural history facts. You only need to know very basic ecology and general life history of the species with which rehabilitators most commonly work. It is important to know, for example, the gestation period of a Douglas squirrel should a pregnant female enter your facility.

## Outline of exam topics

**Section A. Washington Wildlife Ecology and Natural History**

**Section B. Housing & Environment**

**Section C. Diet, Nutrition, & Feeding**

**Section D. Public Contact & Education**

**Section E. Restraint & Handling**

**Section F. Diseases, Care, & Treatment**

**Section G. Wildlife First Aid & Triage**

**Section H. Epizootic Diseases**

**Section I. Zoonotic Diseases**

**Section J. Euthanasia and Carcass Disposal**

**Section K. Release**

**Section L. Rules, Laws, & Regulations**

## B. Housing & Environment

Before proceeding, check that your local jurisdiction (city or county) will permit the building and operation of wildlife care facilities.

**Animals in rehabilitation may not be housed where they are subject to public viewing, display, disturbance, access, or exhibit, or in proximity to domestic animals and unnecessary human contact including noise.**

Wildlife species have a wide array of caging and enclosure requirements both for their physical and psychological health. They need everything from proper food containers to appropriate enrichment activities. You will need to know the housing requirements for many species and groups of animals if you wish to rehabilitate multiple species. You must be particularly good at keeping wildlife isolated from humans.

Three stages of caging are required for each degree, or phase, of injury or illness. **Temporary or stabilizing confinement** caging restricts activity and mobility to a minimum allowing for observation, rest, and preventing further injury. **Recovery phase** cages allow for limited activity and mobility. **Conditioning phase** requires cages large enough for the animal to perform most of its natural daily behaviors, such as flight cages for birds. Depending on the species of animal, these may have to be very large, allowing for unlimited activity and mobility and to provide physical and psychological conditioning.



Fawn Barn, Wolf Hollow



Songbird Aviary, conditioning phase, Wolf Hollow

A critical part of captive animal housing is sanitation – cleaning everything properly. There are many types of disinfectants; directions must be followed carefully. An ideal disinfectant should kill a broad spectrum of disease organisms, be non-toxic, non-irritating, non-corrosive, and readily inactivated after application.

Because of the dangers associated with the raccoon parasite *Baylisascaris*, no other species should be housed in a cage that raccoons have occupied, with the exception of stainless steel cages and outdoor enclosures that can be flame sterilized.

## C. Diet, Nutrition, & Feeding

Animals' diets can be highly specialized or very general, or somewhere in between. Raccoons, bears, skunks, and robins are omnivores, or generalists, as are people. Cats are usually strict carnivores and deer, elk, and moose strictly herbivores. It is vitally important that you know the details of wildlife nutrition and specific food requirements of the species with which you work. Something as obscure as a calcium to phosphorus ratio imbalance can be deadly for many species. It is imperative that you know the natural wild foods of the species you are treating.

## D. Public Contact & Education

By signing the WDFW Wildlife Rehabilitation Permit, you are agreeing to the publication of your name and contact numbers on the WDFW Wildlife Rehabilitation web page; your name and contact numbers are therefore made public. You are not, however, legally or morally obligated to pick up any and all sick and injured animals when a member of the public demands it. You may choose when and where at any given time that you are willing or able to pick up or receive an animal. You may also decline to rehabilitate any

species you do not wish to have in your facility. These you will most likely not be permitted for anyway. For example, some rehabilitators do not wish to rehabilitate raccoons and will not accept or retrieve them. You may wish to prepare a sympathetic answer for the public should this occasion arise.

Much of your time as a wildlife rehabilitator is spent on the phone educating callers. You will get questions on wildlife identification, wildlife nuisance problems, life history and behavior, laws and regulations, and “how to take care of” wild animals. Non-licensed members of the public may not care for wildlife, so your advice is limited to how to keep the animal comfortable and stable until it can get to you or another rehabilitator. Most of the time you will be educating the public to simply leave wildlife alone, as in the case of “orphaned” wildlife, usually not truly orphaned. Even when wildlife has been injured, you will make the judgment whether it is in the animal’s best interest to bring it in or leave it alone.

When the public calls about nuisance or problem wildlife, wildlife rehabilitators are not permitted nor licensed to remove these animals. This must be done by NWCOS. Please refer them to the WDFW web page [Living with Wildlife](#).

### E. Restraint & Handling

The most important aspect of animal restraint and handling is to consider how you and your staff can protect yourselves against injury; human safety comes first. Animal restraint classes are offered by several organizations. You may also train with an experienced wildlife rehabilitator. Restraint skill takes experience and an intimate knowledge of that particular species’ behavior and physiology. You or the animal can be injured due to improper technique. Without the proper gloves, rabies poles, etc. even small mammals such as squirrels can give serious bites. Unless you are properly prepared to restrain a given species, you should not accept it into your facility.



Mourning dove (*Zenaida macroura*)

You must also be able to advise the public on how to handle wild animals. If a member of the public calls to report an injured animal, consider first how that animal could harm the caller. Find out the species, its condition, and behavior. Provide specific advice on how to avoid the animal’s defense weapons (such as teeth in the case of most mammals; the beak in the case of a great blue heron, feet in the case of raptors, etc.). Discourage the caller from handling larger animals. The level of legal liability for yourself is not yet clear should the person get hurt while following your advice.

**Animal stress.** Wild animals in captivity are exposed to a great amount of stress that can cause them physical and psychological injury. Avoiding stress to the animals in your care is paramount. Some stress reduction practices are:

- Minimize handling
- Evaluate the animals’ cages and enclosures for frightening or startling objects
- Provide sight barriers and distance between other animals and humans
- Limit talking and noise (no radio, TV, etc.)
- Prohibit pets from within auditory and visual range of any wildlife patients
- Provide proper diet and enrichment

*There is a fine line in wildlife rehabilitation between not stressing the animal and making it feel too comfortable.*

**Taming, Imprinting, and Habituating.** It is of supreme importance that wildlife rehabilitators avoid taming, imprinting, or habituating animals in their care. This means no unnecessary holding or visitations, and no grooming, talking to, or cuddling at any time. Tamed, habituated and human-imprinted animals cannot be released; they will not survive in the wild and they can be dangerous to humans and domestic animals. A tame, habituated, or imprinted animal must be euthanized. If a wildlife rehabilitator does not comply with this directive, they could have their permit revoked permanently.

Taming is a process by which wild animals learn not to fear humans, and are domesticated enough to seek out human company. Imprinting occurs in very young animals at a precise critical period where the animal fixes its attention on and follows the first object or creature it sees, hears, or touches, and becomes socially, and later sexually, bonded, identifying itself as whatever it imprints upon. If the animal imprints upon you, it will believe it is supposed to follow you and do what you do. Imprinting persists into adulthood, is permanent, and cannot be reversed.

Habituation is a course by which an animal stops responding to frequent and repeatedly occurring stimuli (noises, sights, smells) because no negative consequences have occurred. If an animal hears humans talking all the time and nothing bad happens to it, they will no longer believe they are in danger and will respond inappropriately when around other humans. They no longer perceive these things as a threat. The risk of habituation in rehabilitation facilities is high if wildlife is not sequestered and cared for properly.

You can avoid taming and improper imprinting by raising animals with others of their own species (conspecifics) and avoiding any contact with them except for their care. You can decrease the chance of habituation by minimizing to the extreme any noises or other disturbance, and handling and exposure to yourself and other people, especially once the young are feeding independently. The more comfortable a wild animal is around people, the less likely it is to survive and properly function in the wild. It is desirable to have the animal uncomfortable around people.

#### **F. Disease, Care, & Treatment**

Only extensive study, training, and working with skilled licensed wildlife rehabilitators will prepare you for care and treatment of sick and injured animals. Wildlife rehabilitation requires no less training than some other medical technical professions. Life threatening conditions require even more skill and training. Shock, severe dehydration, and emaciation are three of those. Treatment of dehydration and emaciation requires very specific steps administered by a skilled rehabilitator. Emaciated (starving) animals will need warmth and fluids first and must not be given solid food right away. An emaciated animal is in a catabolic, rather than the normal anabolic, state where it draws energy for body functions from stored reserves or, in extreme cases, from its muscle mass. Ingested solid food can abruptly shift the patient's physiology to a clinical condition called Refeeding Syndrome. This is a potentially fatal condition characterized by imbalance in electrolytes and fluid as well as multi-system failure and multi-organ dysfunction.

*Treatment of dehydration and emaciation is advanced medicine.*

A rehabilitator must be able to recognize shock instantly, warm the animal and administer the correct electrolyte fluids preferably subcutaneously or intravenously. Major bleeding is another life threatening situation that may be alleviated by manual pressure directly over the wound.

#### **G. Wildlife First Aid & Triage**

Triage is deciding which illness and injury will be treated first (urgent and life-threatening), and which

can be done later (stable and minor). Some will not be treated at all – those that are severe beyond repair or treatment, and zoonotics - these cases are almost always immediately euthanized. Your volunteer training at an established licensed facility will teach you the process of triage and how to identify which conditions need immediate attention and which do not. Often the best initial treatment, even for broken limbs and larger wounds, is simply placing the animal in a warm, quiet, dark enclosure for stabilization and recovery from stress.

## H. Epizootic Diseases

An epizootic disease is the nonhuman equivalent of an epidemic, such as West Nile Virus in birds and [Epizootic Hemorrhagic Disease](#) (EHD) in deer. An epizootic disease is one that occurs in many individuals of the same or related species in the same area. Wild animals transport a variety of diseases that can cause significant mortality in pets or food animals. Canine distemper carried and suffered by raccoons is a disease with the potential of causing large-scale mortality in dogs and other susceptible species. It is, therefore, essential to isolate new animals entering a facility. Domestic animals should be kept well away from all wild animals, their feces, and bedding. Be careful to change contaminated clothing and wash well before going into family or pet areas.

It is required that you report epizootic diseases to the WDFW state veterinarian and Washington Dept. of Health; rehabilitators can play a significant role in protecting domestic animal health.

## I. Zoonotic Diseases – Your Safety & Public Health

Zoonotic diseases (or zoonoses) are animal diseases transmissible to humans - you. They are diseases that are shared between wildlife and people. Zoonoses are caused by bacteria, viruses, parasites, protozoans, vectors such as ticks, or other agents. Diagnoses of zoonoses in wildlife cannot be made by a single clinical sign or even multiple signs but must be made through a veterinarian's examination and tests. A few examples of zoonotic diseases are:

- Staph and strep infection
- Cryptosporidiosis
- Salmonella
- Tularemia
- Psittacosis
- West Nile virus
- Raccoon roundworm *Baylisascaris procyonis*
- Rabies

The potential for zoonotic infection is everywhere. Good hygiene and sanitation practices are essential. Rehabilitators play an important role in protecting public health by being alert to these diseases. Wildlife



## Human Safety

The safety of yourself, the public, your employees, and your volunteers comes first. You must always educate and protect yourself and those who work with you.





rehabilitators are required by WDFW to report all zoonotics to the WDFW state veterinarian. You will receive a report form with your packet upon becoming a wildlife rehabilitator.

All zoonotics can cause disease in humans. However, some are more prevalent and dangerous or very dangerous if encountered. Two good examples of those diseases are raccoon roundworm and rabies; diseases for which you must be extra careful. Both of these are potentially deadly to humans. Raccoon roundworm is very prevalent in raccoon feces, whereas, the rabies virus is very rare in Washington State. Be sure to get to know your [local health department page](#).

Because of their potential to come into contact with and contract illnesses not typical of the general public, wildlife rehabilitators should always inform their medical care givers of the unique aspects of their job to ensure medical professionals have all the necessary information to properly diagnose and treat a medical condition. Medical alert wallet cards for wildlife rehabilitators are available on the WDFW Wildlife Rehabilitation web site and are distributed to Washington wildlife rehabilitators.

***Baylisascaris procyonis* – Raccoon roundworm.** The eggs of this parasite are shed in raccoon feces and when ingested cause a condition called visceral larval migrans to which humans are highly susceptible. When the ingested eggs hatch, they penetrate the digestive tract and migrate to other organs of the body, not uncommonly the brain. The eggs are extremely resistant to degradation in the environment and can lay dormant and viable for years. They are not killed by common cleansers, disinfectants, or conventional cleaning. To successfully kill and remove *Baylisascaris* eggs, flaming with a blowtorch throughout the cage is most effective.

**Rabies Vector Species.** Any mammal can be a carrier of rabies but the primary reservoir in the Northwest is bats, and even then the occurrence is very rare. Between 5-10% of bats **submitted for testing** in this state are found to be rabid. This is a skewed population of sick and injured bats. In reality, less than 1% of the total Washington state bat population is infected with rabies. In 2012, a total of 9 rabid bats were identified in Washington State and in 2011, a total of 11 rabid bats were identified here. For rabies maps see [www.doh.wa.gov/youandyourfamily/illnessandddisease/rabies/rabiesactivity](http://www.doh.wa.gov/youandyourfamily/illnessandddisease/rabies/rabiesactivity). Other wild animals infected in other states are raccoons, foxes, and skunks. A few coyotes in Oregon have begun showing up with rabies. Lagomorphs (rabbits and hares) rarely carry rabies, and rabies is rare among rodents with the exception of woodchucks.

Be aware of the risks not only to yourself but to your family, staff, volunteers, and anyone else who might come in contact with these animals. Become familiar with the symptoms of rabies and their similarity to symptoms of other conditions. Discuss with your physician the pre-exposure series, and with your local

## A Few Zoonotic and Epizootic Disease Prevention Measures

- Good hygiene – wear gloves and wash hands after handling wildlife;
- Do not store food, eat, or drink where wildlife is housed or treated;
- Immediately wash well the site of bite wounds should you be bitten;
- If you are bitten by a carnivore or bat, thorough clean the bite wound and immediately contact your doctor or local health department;
- Appropriately disinfect all areas where wildlife is housed and treated and all items wildlife touches;
- Launder wildlife rehabilitation clothing and towels separate from any personal laundry in a separate washing machine;
- Let your doctor know you work with wildlife;
- Keep tetanus shots current;
- Consider rabies pre-exposure vaccination.

Health Department the protocol for managing situations involving bites or other exposure to animal saliva. Thoroughly wash animal bite wounds and safely capture any bat that has had contact with a person.

The primary defense against zoonotics is good hygiene – wash hands well after handling wildlife and do not store or consume food where animals are housed or treated.

## J. Euthanasia and Carcass Disposal

You must have your euthanasia policies and procedures in place before you begin admitting animals for rehabilitation. You can expect that possibly half have or more of the animals you admit to your facility will die or need to be euthanized. You must be confident in your emotional ability to euthanize animals when necessary.

Many humane euthanasia techniques require the use of injectable drugs that can only be administered by a veterinarian or certified technician; therefore, make arrangements with your veterinarian or take a euthanasia certification class before opening your facility. You may also find a safe and humane alternative to scheduled drugs and these must be listed in your written protocol. The [American Veterinary Medical Association Guidelines on Euthanasia](#) are the national euthanasia standards.

An animal must be euthanized if:

- It is unable to recover from injuries or illness;
- It has a terminal illness;
- It is imprinted on humans, habituated, or tame; or
- It is unable to hunt or forage successfully

**Bald and Golden Eagles and Threatened and Endangered Species.** Wildlife rehabilitators must obtain permission from the USFWS before euthanizing a bald or golden eagle or a Federally listed threatened or endangered species unless USFWS personnel are not available and humane considerations warrant prompt euthanasia. For all other species, WDFW respects the judgment of veterinarians and licensed rehabilitators and allows euthanasia without direct permission. However, you must notify both the WDFW Wildlife Rehabilitation Manager and USFWS after euthanizing any of these species.

**Carcass Disposal.** Animals that die of natural causes or are euthanized must be disposed of according to local rules and ordinances. Examples of acceptable disposal methods include: incineration, rendering, transferring to an institution with a valid salvage or possession permit, or burying to a sufficient depth to prevent excavation by scavengers. Valid and current wildlife rehabilitation permits allow wildlife rehabilitators to retain wildlife carcasses for education with approval from WDFW.

Bald eagles and golden eagles must not be disposed of but must be sent to the National Eagle Repository after notifying USFWS. **Endangered or threatened species** must not be disposed of until the WDFW and USFWS has been notified. Endangered or threatened, and bald or golden eagles must not be necropsied without first obtaining permission from USFWS.

Carcasses of any wild animal cannot be sold, used as food for rehabilitation or used for any other commercial purpose. You may check with [Washington State University Conner Museum](#), [University of Puget Sound Slater Museum](#), or [University of Washington Burke Museum](#) to see if they would like the carcasses for study skins. You may only give deceased wildlife, or parts including feathers, to institutions that have a valid permit to possess them for educational or scientific purposes.

## K. Release

Rehabilitation and release should only be undertaken when the animal has a reasonable chance for survival in the wild. In Washington, there is a six-month (180 day) limit on the length of time an animal may be kept in rehabilitation (though extensions are granted if a longer recuperation could realistically result in release).

Rehabilitated animals released to the wild must be physically and psychologically equipped to handle this release and they must be conditioned to survive and reproduce. There are many [criteria to consider when preparing to release an animal](#).



Reproductive potential must always be weighed and each species' natural history must be known. Your main concern is to minimize stress on the animal. Some of the most important release criteria include:

- recovery from the primary injury/illness,
- positive health screening; zero exposure to infectious diseases and parasites during rehabilitation,
- physical conditioning,
- acclimation to weather,
- release site selection,
- seasonal timing of release, and
- behavioral and psychological fitness such as food recognition and hunting/foraging skills, predator recognition and avoidance, including human, and conspecific recognition.

**Non-releasability.** Many animals cannot be released. If an animal is non-releasable, there are two options: 1) euthanasia, 2) life in captivity.

Most captive wild animals are under constant stress from human contact and confinement and may exhibit self-destructive behaviors when caged. It is inhumane to keep these animals; euthanasia rather than placement should be seriously considered. Any animal that is tamed, habituated, or imprinted is not likely to survive or breed successfully, and is highly likely to become a problem animal due to its lack of fear of people. These animals should not be released. The U.S. Fish and Wildlife Service requires that migratory birds unable to feed themselves, perch, or ambulate; are blind, or require an amputation of a leg, foot, or wing at the elbow or above be euthanized ([www.fws.gov/migratorybirds/mbpermits.html](http://www.fws.gov/migratorybirds/mbpermits.html)) (50 CFR 21.31).

## L. Laws, Rules, & Regulations pertaining to Wildlife Rehabilitation in Washington State

You will need to know WDFW requirements, WACs (Washington Administrative Code), and RCW's (Revised Code of Washington) pertaining to Wildlife Rehabilitation in Washington State. Please read the [Washington State Wildlife Rehabilitation Requirements](#).

WDFW Wildlife Rehabilitation Permits expire three years from the date of issuance and must be renewed every three years. You must fill out a Permit Renewal Application prior to the expiration date, and another facility inspection may be required. You must submit all required Annual Reports and Ledgers to have your Wildlife Rehabilitation Permit renewed.

## **Unlawful Take Laws**

All native wildlife is protected by state **and/or** federal laws and Federal permits are required for everyone holding a migratory bird. This encompasses all native species of wild birds including songbirds, perching birds, waterfowl, wading and shore birds, and raptors. Licensed veterinarians may hold wildlife for up to 48 hours without a permit but must transfer them to a licensed wildlife rehabilitator after that time.

### **RCW 77.15.130**

#### **Protected fish or wildlife — Unlawful taking — Penalty.**

- (1) A person is guilty of unlawful taking of protected fish or wildlife if:
  - (a) The person hunts, fishes, possesses, or maliciously kills protected fish or wildlife, or the person possesses or maliciously destroys the eggs or nests of protected fish or wildlife, and the taking has not been authorized by rule of the commission; or
  - (b) The person violates any rule of the commission regarding the taking, harming, harassment, possession, or transport of protected fish or wildlife.
- (2) Unlawful taking of protected fish or wildlife is a misdemeanor.

### **RCW 77.15.120**

#### **Endangered fish or wildlife — Unlawful taking — Penalty.**

- (1) A person is guilty of unlawful taking of endangered fish or wildlife in the second degree if the person hunts, fishes, possesses, maliciously harasses or kills fish or wildlife, or maliciously destroys the nests or eggs of fish or wildlife and the fish or wildlife is designated by the commission as endangered, and the taking has not been authorized by rule of the commission.
- (2) A person is guilty of unlawful taking of endangered fish or wildlife in the first degree if the person has been:
  - (a) Convicted under subsection (1) of this section or convicted of any crime under this title involving the killing, possessing, harassing, or harming of endangered fish or wildlife; and
  - (b) Within five years of the date of the prior conviction the person commits the act described by subsection (1) of this section.
- (3)
  - (a) Unlawful taking of endangered fish or wildlife in the second degree is a gross misdemeanor.
  - (b) Unlawful taking of endangered fish or wildlife in the first degree is a class C felony. The department shall revoke any licenses or tags used in connection with the crime and order the person's privileges to hunt, fish, trap, or obtain licenses under this title to be suspended for two years.

## Wildlife Rehabilitation Laws in Washington State

WAC 232-12-275 and WAC 232-12-841 through WAC 232-12-867

See <http://app.leg.wa.gov/wac/default.aspx?cite=232-12> and click on the correct WAC numbers.

**These are other codes (laws) you must know:**

See <http://app.leg.wa.gov/wac/> and <http://app.leg.wa.gov/rcw/>. Click on Title 232, 16 and 246 for the WAC's and Title 77 for the RCW's.

- RCW 77.12.469 - Renewal of wildlife rehabilitation licenses
- RCW 77.15.250 - Unlawful release of fish, shellfish, or wildlife
- RCW 77.12.020 – Wildlife to be classified
- WAC 232-12-011 – Wildlife classified as protected shall not be hunted or fished
- WAC 232-12-017 - Deleterious exotic wildlife
- WAC 232-12-064 - Live wildlife. Taking from the wild, importation, possession, transfer, holding in captivity.
- WAC 16-54-180 - Wild and exotic animals and birds - Importation and testing requirements
- WAC 246-100-191 Animals, birds, pets – measures to prevent human disease
- Chapter 246-100 - WAC Communicable and certain other diseases

### Transferring animals across state lines

Cervids (deer, elk, and moose) may **NOT** be transported across state borders for rehabilitation. State laws are strict against interstate movement of cervids due to Chronic Wasting Disease (CWD), brucellosis, and tuberculosis. The state Department of Agriculture also monitors these populations and diseases closely.

**Prohibited Importation** - Bats, skunks, foxes, raccoons, and coyotes

The state Department of Health has regulations against importing bats, skunks, foxes, raccoons, and coyotes because of rabies. WAC 246-100-191 prohibits importation into the state any **bat, skunk, fox, raccoon, or coyote** without a permit. To import these species, you must obtain a permit from the Washington State Department of Agriculture.

### Delegation of Permit Authority – Sub-permittees

Registered volunteers and employees designated on your Permit as Sub-permittees may bring home animals on a very limited and temporary basis for emergency or over-flow care. Sub-permittee home facilities must be inspected and approved by the Primary Permittee. WAC 232-12-843 and WAC 232-12-847 govern wildlife rehabilitation sub-permittees and must be adhered to. The Primary Permittee is responsible for all of their Sub-permittees and compliance with the rules.

### Mandatory Disease Reporting

WDFW requires that certain diseases be reported to the State Wildlife Veterinarian within 24 hours of diagnosis using the WDFW *Wildlife Rehabilitation Disease Report Form* you receive with your Permit. These diseases are:

- West Nile virus
- White-nose syndrome
- Avian Cholera
- Avian pox
- Duck viral enteritis
- Psittacosis
- Rabies
- Environmental toxin
- Canine distemper
- Tuberculosis
- Newcastle disease
- Salmonellosis
- Hair loss syndrome
- Deer adenovirus
- Plague
- Leptospirosis
- Tularemia

## Wildlife Rehabilitation Permit Conditions

These conditions apply when you receive your permit; your signature is required on the permit, indicating that you agree to abide by these conditions.

### WILDLIFE REHABILITATION PERMIT CONDITIONS listed on the Permit

1. Only the facility specified on this permit is authorized as a wildlife rehabilitation facility;
2. The Primary Permittee must notify the WDFW Wildlife Rehabilitation Manager within ten days of moving or relocating their rehabilitation facility, failure to do so will result in suspension of the permit;
3. The Primary Permittee is responsible for all sub-permittees and must ensure that sub-permittees abide by all permit conditions and state and federal laws and that all sub-permittee are qualified to care for the animals assigned to them;
4. Only sub-permittees listed on the Primary Permittees permit are authorized to care of wildlife at their off-site facility;
5. The Primary Permittee is responsible for ensuring that any sub-permittee's facilities meet minimum qualifications for species and treatment stages for animals within the sub-permittee's care;
6. The Primary Permittee must display a copy of their permit where it is visible to the public.
7. Sub-permittees must have a copy of the Primary Permittee's permit at the sub-permittee's facility;
8. The Daily Ledger must be kept current daily and at the rehabilitation facility;
9. Facilities and wildlife enclosures must be kept in sanitary condition;
10. The Primary Permittee will submit to the Department an Annual Report on the form provided by the Department no later than January 31 of each year;
11. Wildlife acquired and held under this permit, including deceased wildlife and parts, remains the property of the state and will not be offered for sale or sold;
12. Wildlife may not be held longer than 180 days from the day of admittance without written authorization from the department;
13. Primary permittees must consult with the department before releasing cervids, coyotes, or large carnivores in a site other than where it was recovered;
14. Wildlife held for rehabilitation at the facility shall have no contact, including visual, with domestic animals and education animals, and minimal contact with humans to prevent habituation and imprinting;
15. The Primary Permittee will notify the Wildlife Rehabilitation Manager in writing within 24 hours of receiving a state of federally endangered or threatened species; and within 72 hours of receiving state sensitive species or marked, tagged, or banded wildlife;
16. The Primary Permittee will notify the Wildlife Rehabilitation Manager prior to the release of a threatened or endangered species;
17. The Primary Permittee will notify in writing the Wildlife Rehabilitation Manager within 24 hours of the death of a state or federally endangered or threatened species, or as soon as a threatened or endangered species is determined to be non-releasable to the wild;

18. Threatened or endangered species will not be disposed of or euthanized without prior department approval except in the case where it would be inhumane to keep the animal alive;
19. This permit does not authorize the practice of veterinary medicine unless the permittee is a licensed veterinarian as required by state code;
20. All wildlife diseases must be diagnosed by a veterinarian; the Primary Permittee must report within 24 hours to the WDFW Wildlife Veterinarian any wildlife diagnosed with or to have died from any of the following diseases: West Nile virus, white-nose syndrome, avian cholera, avian pos, duck viral enteritis, psittacosis, rabies, environmental toxins, canine distemper, tuberculosis, Newcastle disease, salmonellosis hair loss syndrome, deer adenovirus, plague, leptospirosis, and tularemia;
21. All wildlife is a potential vector for disease transmission and injury to humans; persons handling live or dead wildlife under this permit do so at their own risk and the state of Washington is not responsible for any injury to or disease contracted by the permittee or any other person;
22. The Primary Permittee must submit all animals requested by the Dept. of Agriculture for rabies testing;
23. Transferring deceased wildlife to a permitted museum or research institution is encouraged, otherwise deceased wildlife will be disposed of through burial, incineration, or a licensed rendering facility; wildlife euthanized with euthanasia solution may not be buried;
24. Other federal and/or local permits may be required; it is the responsibility of the Primary Permittee to obtain all required permits.



## APPENDIX 1. General Wildlife Rehabilitation Exam Questions

### SAMPLE

Answers are provided for study purposes

#### Washington Department of Fish and Wildlife GENERAL WILDLIFE REHABILITATION EXAM

#### Sample Questions

*The General Exam contains questions on both birds and mammals*

#### Section A. Washington Wildlife Ecology & Natural History

1. All passerines are precocial. FALSE
2. It is natural for some mammals to leave their young unattended for long periods of time, only returning to feed their young. TRUE
3. The following mammal species are considered introduced in all or part of Washington State EXCEPT:
  - a. Coyote
  - b. Eastern cottontail
  - c. Common opossum
  - d. Fox squirrel
  - e. All are introduced in Washington State

**a. Coyote**
4. In mammals, what type of feeding group has both sharp canines and smooth molars for grinding food?
  - a. Carnivores
  - b. Omnivores
  - c. Herbivores
  - d. Insectivores
  - e. Pre-weanlings

**b. Omnivores**
5. The term weaning refers to:
  - a. Sleeping
  - b. Drinking water
  - c. Transition from milk to solids
  - d. Releasable
  - e. Shedding winter coat

**c. Transition from milk to solids**

#### Section B. Housing & Environment

6. Detergents are effective against fungi and viruses. FALSE



7. Deer should be kept in pens with smooth cement floors. FALSE
8. Wild birds should never be kept in damp, poorly ventilated holding cages because:
  - a. This environment is favorable to the development of fungal and bacterial infections
  - b. The bird's feathers will be damaged
  - c. It will cause an unnatural molt
  - d. Food will spoil quickly in this type of environment
  - e. This type of caging is acceptable for ducks

**a. This environment is favorable to the development of fungal and bacterial infections**
9. If an adult of the same species is not available for proper imprinting, what substitutes can be employed?
  - a. Unrelated juvenile or fledgling conspecifics
  - b. Sibling conspecifics with a bird skin puppet
  - c. Bird skin puppet if conspecifics are not available
  - d. All of the above
  - e. Substitutes should not be used

**d. All of the above**

### Section C. Diet, Nutrition, & Feeding

10. For their size, growing juvenile animals have greater caloric requirements than adult animals. TRUE
11. The mothers' milk of all mammals has pretty much the same proportions of macronutrients (protein, fat, carbohydrate); therefore, mammal orphans can all be raised on the same milk substitute. FALSE
12. In captivity, a wild animal offered a variety of foods will always eat those that are good for it. FALSE
13. Mammals are easier to tube feed than birds because their glottis is visible when the mouth is opened. FALSE
14. The natural diet of chickadees, finches, and grosbeaks consists of which of the following food groups?
  - a. Mainly seeds with some insects and fruits
  - b. Mainly fruits with some insects
  - c. Mainly earthworms
  - d. Mainly fruits
  - e. Mainly nectar

**a. Mainly seeds with some insects and fruits**
15. Metabolic bone diseases 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
  - e. None of the above

**d. All of the above**

16. Aspiration pneumonia is a common problem with bottle-feeding 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
  - e. b and c
- a. Feeding too large a volume of formula too rapidly**

#### Section D. Public Contact and Education

17. Advise people to feed weak animals as soon as possible before taking them to a rehabilitator. FALSE
18. The primary concerns when advising the public on how to handle ailing wildlife are to (first) avoid injury to the handler, and to (second) avoid any further injury to the animal. TRUE
19. When a fledgling bird is found on the ground under a bush in the yard, the best advice is:
- a. Take it in immediately for care and rehabilitation
  - b. Place the bird in a sheltered location nearby and leave the scene so that the parent bird will return to its young
  - c. Remain nearby in the yard to observe the bird for awhile
  - d. Ignore it
  - e. Chase it to make sure it can fly
- b. Place the bird in a sheltered location nearby and leave the scene so that the parent bird will return to its young**
20. In spring, a caller tells you that a bird is repeatedly flying into her window; this goes on for long periods on a daily basis. This bird:
- a. was probably hand-raised and tamed by a human
  - b. is cold and hungry and is trying to get inside, where there is food and shelter
  - c. thinks that the bird in the window is its baby
  - d. has a neurological problem and should be captured, if possible, and brought in for rehabilitation
  - e. sees its reflection in the glass and is attacking what seems to be a competitor
- e. sees its reflection in the glass and is attacking what seems to be a competitor**

#### Section E. Restraint & Handling

21. You may restrict a bird's ability to breathe by holding it too tightly around the chest. TRUE
22. The health status of an animal does not determine the restraint method used. FALSE
23. Rescued animals should be transported in which manner?
- a. In your hands
  - b. In a warm, well ventilated, dark, quiet box or pet carrier secured at the top
  - c. In an open box or bucket
  - d. Under your jacket
  - e. None of the above
- b. In a warm, well ventilated, dark, quiet box or pet carrier secured at the top**

24. In rescuing an animal in the field, your paramount concern is:

- a. Securing the animal at all cost
  - b. Safety to the people involved
  - c. Using high-technology capture equipment
  - d. Possibility of hypothermia
  - e. To bring as many people as possible
- b. Safety to the people involved**

#### Section F. Diseases, Care, & Treatment

25. The clinical signs or symptoms of infectious diseases (e.g. rabies, distemper) are distinctive enough for a rehabilitator to determine the difference in a wild animal. FALSE

26. Many parasite eggs can be identified in a stool sample by use of fecal flotation or sedimentation. TRUE

27. Avian pox is a viral infection that causes lesions on the unfeathered portions of the skin of birds. It is generally not a life-threatening illness. TRUE

28. Home products such as Gatorade® or flat cola are as good for treating shock and dehydration as commercial medical products like Lactated Ringers® or Normasol®. FALSE

29. The most common problems in orphaned wildlife are dehydration, starvation, and exposure. TRUE

30. A bird's normal body temperature is considerably higher than that of a mammal. TRUE

31. Accurate body weights are necessary in determining which of the following?

- a. Fluids for replacement or maintenance
  - b. Proper growth or maintenance
  - c. Caloric requirements
  - d. Medication dosages
  - e. All of the above
- e. All of the above**

32. Once an emaciated animal has been warmed, what is the next step in caring for it?

- a. Feed it solid food
  - b. Administer fluids
  - c. Give it antibiotics
  - d. Feed it a diet consisting of basic elements that requires little energy for digestion
  - e. Put it in a quiet environment
- b. Administer fluids**

33. You have a litter of three young mammals in your care, when another young animal of the same species is brought to you, you should:

- a. Immediately add this animal to the existing litter
  - b. Do a fecal exam and if it is negative, add this animal to the litter
  - c. Isolate this new individual for several days before adding it to the litter
  - d. Isolate this new individual for a few hours, and if it appears healthy, add it to the litter
  - e. Do a complete physical then immediately add the animal to the existing litter
- c. Isolate this new individual for several days before adding it to the litter**

34. PCV stands for:
- a. Poor circulatory venting
  - b. Packed cell velocity
  - c. Premium carbohydrate volume
  - d. Packed cell volume
  - e. Poor circulatory velocity
- d. Packed cell volume**
35. What is the fungal disease called whose hosts are generally wild birds and transmission is through inhalation of spores?
- a. Ornithosis
  - b. Aspergillosis
  - c. Distemper
  - d. Rabies
  - e. Viral pneumonia
- b. Aspergillosis**
36. In species other than raccoons, which of the following symptoms are caused by *Baylisascaris procyonis* (raccoon roundworm)?
- a. Central nervous system abnormalities
  - b. Blindness
  - c. Death
  - d. All of the above
  - e. None of the above
- d. All of the above**
37. The term for excessive elevation of the body temperature characterized by panting and increased respiratory and heart rates, is called:
- a. Anemia
  - b. Hypothermia
  - c. Hyperthermia
  - d. Acidosis
  - e. None of the above
- c. Hyperthermia**

#### Section G. Wildlife First Aid and Triage

38. Shock, severe dehydration, severe emaciation, blood loss, or other fluid loss are life-threatening conditions and should be treated immediately. TRUE
39. Rehydrating animals too quickly without careful monitoring can be fatal. TRUE

40. Signs that help you to recognize an animal in shock include:
- a. Severe, watery diarrhea
  - b. Rapid, shallow breathing
  - c. Weak pulse and pale mucous membranes
  - d. b and c
  - e. You can never recognize shock
- d. b and c**
41. Which of the following disinfectants may be used to clean wounds?
- a. Iodophores (e.g., Betadine®)
  - b. Chlorine (e.g., Chlorox®)
  - c. Creasols (e.g., Pine-Sol®)
  - d. Phenols (e.g., Lysol®)
- a. Iodophores (e.g., Betadine®)**
42. A 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. After stabilizing the animal, you should:
- a. Flush the wound thoroughly with lots of saline or warm water
  - b. Wash the wound vigorously with a lot of soap and water
  - c. Amputate the leg
  - d. Apply antibiotic salve to the wound and bandage the leg
  - e. Immediately begin oral antibiotics
- a. Flush the wound thoroughly with lots of saline or warm water**

## Section H. Epizootic Diseases

43. Mammals cannot contract West Nile Virus. FALSE
44. Which of the following statements about raccoon distemper in wildlife is false?
- a. The symptoms often resemble those of rabies
  - b. Raccoons, foxes and skunks are all commonly affected
  - c. The symptoms often include a runny nose and eyes, disorientation, and lack of fear
  - d. A raccoon with distemper, found walking in circles in someone's yard, can probably be saved if taken to a veterinarian right away
  - e. Unvaccinated pet dogs can contract distemper
- d. A raccoon with distemper, found walking in circles in someone's yard, can probably be saved if taken to a veterinarian right away**
45. Mycoplasmal Conjunctivitis (or "finch eye") is spread by:
- a. Eating contaminated foods
  - b. Physical contact with infected birds
  - c. Contact with eye secretions from infected birds
  - d. Spread at bird feeders
  - e. Any or all of the above are possible.
- e. Any or all of the above are possible.**

## Section I. Zoonotic Diseases

46. Quarantining wild animals for a ten-day period is sufficient for determining rabies infection. FALSE
47. Although *Baylisascaris procyonis* (raccoon roundworm) can be spread to humans, it is not particularly harmful to humans. FALSE
48. If a wildlife rehabilitator is bitten by a raccoon or other mammal, the first thing he or she can do to reduce the risk of possible rabies infection is:
- Wash the wound well with soap and water
  - Kill the animal
  - See a physician immediately
  - Quarantine the animal
  - Look for signs of rabies
- a. Wash the wound well with soap and water**
49. Humans may become infected with raccoon roundworms by:
- Eating undercooked raccoon meat
  - Swallowing something contaminated with roundworm eggs
  - Coming in contact with the blood of a raccoon killed on the highway
  - Being bitten by a raccoon showing nasal discharge, weeping eyes and matted greasy fur
  - Petting a raccoon
- b. Swallowing something contaminated with roundworm eggs**

## Section J. Euthanasia & Carcass Disposal

50. Acceptable methods of euthanasia for cold-blooded vertebrates include placing them in a freezer. FALSE
51. When deciding to continue treatment or to euthanize an animal, factors to consider should include:
- The availability of an effective and humane course of treatment
  - Once treatment is completed, whether the animal will be able to re-enter the wild with a reasonable chance of survival
  - If an animal is not releasable, whether there is a good justification for keeping it in captivity other than just to avoid euthanasia
  - All of the above
  - Never euthanize an animal
- d. All of the above**

## Section K. Release

52. Even though a wild animal has been kept with humans and habituated to them, it is okay to release them because they are wild. FALSE
53. Normal body weight is a factor in considering the release of an animal. TRUE
54. One of the most important factors to the success of releasing a rehabilitated animal is:
- Releasing the animal in its natural habitat
  - Releasing the animal on a weekend, so people are more likely to find it if it gets into trouble
  - Releasing the animal on a weekday, because people are likely to be at work and not bother it
  - Releasing all your rehabilitated animals in the same place

e. Releasing the animal as far away from your facility as possible

**a. Releasing the animal in its natural habitat**

55. Which problem in each of the following animals would prevent the successful release of the individual back into the wild?

a. Loss of vision in a red-tailed hawk

c. Loss of one eye in a red fox

b. Loss of a digit in the hind foot of a raccoon

d. Loss of the tip of an ear in a rabbit

e. All would prevent the successful release of these individuals

**a. Loss of vision in a red-tailed hawk**

56. Assuming all other release criteria have been met, it would be appropriate to release which of the following species in Washington in December:

a. Western tanager

b. Rufous hummingbird

c. Yellow warbler

d. Vaux's swift

e. Ring-necked pheasant

**e. Ring-necked pheasant**

**Section L. Laws, Rules & Regulations**

57. It is permissible to allow the public to view wildlife while it is being cared for in rehabilitation. FALSE

58. Birds such as robins, mourning doves, crows, etc. that are present in Washington year-round are not migratory; therefore, a federal permit is not required to rehabilitate them. FALSE

59. A permitted wildlife rehabilitator may accept sick and injured deer from outside Washington. FALSE

60. A wildlife rehabilitation permit may be revoked or not renewed if the rehabilitator:

a. keeps permanently crippled animals as pets

b. keep animals in environmental conditions not approved by the WDFW

c. habituates wild animals and keeps as pets

d. performs anesthesia and surgery without a vet

e. all of the above

**e. all of the above**

61. For a wildlife rehabilitator who does not have a federal rehabilitation permit, which of the following species may be kept for treatment?

a. crow

b. bald eagle

c. turkey

d. robin

e. great blue heron

**c. Federal permits are required only for native migratory birds (as defined by the Migratory Bird**

**Treaty Act), marine mammals and reptiles and endangered species. Washington State governs non-migrating game birds such as turkeys.**

62. Which of the following is not listed as a state threatened or endangered species in Washington?
- a. snowy plover
  - b. sea otter
  - c. Vaux's swift
  - d. western gray squirrel
  - e. gray wolf
- c. Vaux's swift**
63. When a mortally injured state endangered species enters a rehabilitation facility, the rehabilitator should:
- a. Euthanize it immediately
  - b. Turn it over to the U.S. Fish and Wildlife Service
  - c. Contact the Washington Department of Fish and Wildlife and advise them that the animal should be euthanized
  - d. Refuse to treat it
  - e. Release it to the wild
- c. Contact the Washington Department of Fish and Wildlife and advise them that the animal should be euthanized**





