

# MAINE STATE LEGISLATURE

The following document is provided by the  
**LAW AND LEGISLATIVE DIGITAL LIBRARY**  
at the Maine State Law and Legislative Reference Library  
<http://legislature.maine.gov/lawlib>



Reproduced from scanned originals with text recognition applied  
(searchable text may contain some errors and/or omissions)

# RABIES MANAGEMENT GUIDELINES

**A compendium of rabies control measures  
and planning strategies compiled by the  
Maine Rabies Work Group – 1998.  
(Part I)**



**STATUTES AND RULES  
PERTAINING TO ANIMAL CONTROL AND RABIES  
(Part II)**

*~This Manual is Available in Alternative Formats~*



## Foreword

Since the simultaneous introduction of the raccoon rabies strain and the arctic fox strain into Maine in 1994, rabies spread dramatically in 1997. As of the end of 1997, 244 animals were reported positive, an increase of 86% from the 131 cases reported in 1996. The Rabies Work Group has worked to respond to the many issues created by this rabies epizootic by updating and redistributing this manual to animal control officers, veterinarians and hospital emergency departments statewide. This manual should serve as an educational tool for use in all facets of community rabies control. Additionally, it is hoped that this manual will assist communities in standardizing rabies control practices within the State.

### **Special thanks to the following individuals who worked to prepare this comprehensive revised manual:**

|   |   |   |
|---|---|---|
| Pat Bailey, Interpretative Specialist<br>Department of Conservation | T.K. Lee, Dr PH<br>Health & Environmental             | Bruce Savoy, ACO<br>Scarborough Police Dept.                  |
| Kathy Coriell, DVM<br>Lewiston Veterinary Hospital                  | David Manski, Chief Biologist<br>Acadia National Park | Lt. Anne Schaad<br>Maine State Police                         |
| Kathy Gensheimer, MD, MPH<br>Bureau of Health                       | Paula Mitchell<br>Humane Society                      | Parker Tripp, Warden Service<br>Inland Fisheries and Wildlife |
| Philip Haines Dr.PH, Deputy Director<br>Bureau of Health            | Chip Ridky, DVM<br>Department of Agriculture          | Dwight Welch<br>Inland Fisheries and Wildlife                 |
| Henry Hilton, Staff Biologist<br>Inland Fisheries and Wildlife      | Gary Sargent<br>Inland Fisheries and Wildlife         | Diane Williams, R.N.<br>Bureau of Health                      |

The Rabies Work Group considers the effort of responding to the needs posed by the rabies epizootic as a dynamic process. We are interested in feedback from you concerning the manual or any other aspect of rabies control. Please feel free to contact any of us for further assistance.



# TABLE OF CONTENTS

|   |    |
|---|----|
| Introduction.....   | 2  |
| Contact List/Definitions.....                                       | 3  |
| Abbreviations.....  | 6  |
| Biology of Rabies.....  | 7  |
| What is an Exposure?.....   | 7  |
| Incubation.....   | 8  |
| Clinical Signs.....   | 8  |
| Diagnosis.....  | 9  |
| Diseases Which Can Resemble Rabies.....                             | 10 |
| Municipalities' Responsibility to Rabies Control.....               | 12 |
| Response Plan.....  | 12 |
| Liability.....  | 12 |
| Equipment for the ACO.....  | 13 |
| Rabies Risk Reduction.....  | 14 |
| Human Exposure to Rabies.....                                       | 17 |
| Animal Management (Algorithm).....                                  | 19 |
| Human Pre-Exposure Vaccination Guide.....                           | 20 |
| Guide to Human Post-Exposure Treatment.....                         | 21 |
| Human Post-Exposure Schedule of Treatment.....                      | 22 |
| Management of Dogs, Cats and Ferrets Which Bite Humans.....         | 23 |
| Domesticated Animal Exposure to Rabies                              |    |
| Dogs, Cats, or Ferrets Exposed to Rabies.....                       | 24 |
| Quarantine Periods.....   | 25 |
| Management of Dogs, Cats and Ferrets Exposed to Rabies.....         | 26 |
| Livestock.....  | 27 |
| Wildlife Hybrids.....   | 31 |
| Bat Encounters.....   | 32 |
| Rodents and Rabbits.....  | 34 |
| Wildlife.....   | 35 |
| Formulation of Rabies Prevention Policies in Animal Facilities..... | 36 |
| Rabies Testing.....   | 39 |
| Specimen Preparation (Decapitation) by Veterinarians.....           | 41 |
| Transporting Specimens to the Laboratory.....                       | 43 |
| APPENDIX.....   | 45 |
| Directions to the HEtL.....   | 46 |
| Rabies Submission Form.....   | 47 |
| Quarantine Notice.....  | 48 |
| Animal Bite Report.....   | 49 |
| Animal Shelter Adoption disclaimer.....                             | 51 |
| Recommended Handling Procedures for Animal Carcasses.....           | 52 |
| Wolf Hybrid Notice.....   | 55 |
| Licensed Rabies Vaccines.....                                       | 56 |
| <b>PART II Statutes and Rules Relating to Rabies Control</b>        |    |
| Rules Governing Rabies Management.....                              | 60 |
| Human Services Laws Governing Rabies.....                           | 68 |
| Immunization Requirements for Dog Licensure.....                    | 70 |
| Animal Welfare Laws Governing Rabies.....                           | 71 |

## INTRODUCTION

In developing countries, rabies in domesticated dogs and cats accounts for most of the estimated 30,000+ human deaths per year from this disease worldwide. However, in the United States, rabies in domesticated animals and humans has fallen to a very low level. Between 1980 and 1997, human deaths in the United States averaged two per year. This is due to widespread vaccination of domesticated animals, animal control efforts to reduce stray animal numbers, and effective post-exposure vaccine for humans.

Wildlife is the major carrier of rabies in the United States. Confirmed cases of rabies in animals in this country have been increasing over the last decade with approximately 90% of these occurring in wildlife. Rabies became established in raccoons in the Mid-Atlantic States in 1977, then migrated slowly north and east until 1994, when it moved into Maine. In addition, a strain of rabies affecting foxes has been identified in Maine since 1994. Bat rabies is enzootic in all contiguous 48 states including Maine.

The purpose of this manual and the rules for rabies management promulgated by Maine's Department of Human Services, the Department of Agriculture-Animal Health and Industry and the Department of Inland Fisheries and Wildlife are to:

- a. provide information on rabies as a disease;
- b. outline prevention and treatment of rabies exposure in humans, domesticated animals and wildlife; and
- c. help municipalities and animal care facilities develop their own rabies response plans.

This manual contains information from similar manuals prepared by the states of Virginia, New Jersey, New York, Texas, Connecticut, Georgia and Massachusetts, and their contributions are gratefully acknowledged.

In Maine, the primary responsibility for the prevention of rabies lies with the Department of Human Services. However, since rabies generally begins in the wild animal population, moves to the domesticated animal population and then to humans, various state agencies participated in the Rabies Work Group and assisted in the preparation of this manual. These include the Department of Agriculture-Animal Health and Industry, the Department of Inland Fisheries and Wildlife, the Department of Conservation, and the Maine State Police; private organizations including the Maine Municipal Association, Maine Veterinary Medical Association, Maine Federation of Humane Societies, Maine State Association of Veterinary Technicians, Maine Animal Control Officers Association, and the University of Maine Cooperative Extension.

# MAINE RABIES CONTACT LIST

## Human and animal exposure questions and rabies testing:

Maine Bureau of Health, Health & Environmental Testing Laboratory 287-2727  
Epidemiology Program 287-5301 TTY: 287-8016 (Deaf/Hard of Hearing)  
After-hour *Emergency* Consultation (800) 452-1999  
Maine Department of Inland Fisheries and Wildlife 287-5252 TTY: 287-4471 (Deaf/Hard of Hearing) or call your local law enforcement agency or state police to contact a game warden in your area.

### State police (nights & weekends)

Houlton (800) 924-2261  
Orono (800) 432-7381  
Gray (800) 482-0730  
Augusta (800) 452-4664

### Warden Service (weekdays)

Division A (Gray) (207) 657-2345  
Division B (Sidney) (207) 547-5300  
Division C (Bangor) (207) 941-4440  
Division D (Greenville) (207) 695-3756  
Division E (Ashland) (207) 435-3231

Domestic animal and livestock questions: Maine Department of Agriculture, Animal Health and Industry (State Veterinarian's Office) 287-3846

Bat control questions: Maine Department of Agriculture, Pesticides Control Board 287-2731

Local animal control officer and your town's animal shelter: Your local animal control officer and animal shelter can be reached by calling the town office or city hall, local law enforcement agency, or by calling the Department of Agriculture at 287-3846

Maine Federation of Humane Societies: Call the Department of Agriculture (287-3846) to obtain the current President's name and phone number.

Educational materials (fact sheets and posters): Department of Human Services, Division of Disease Control, Epidemiology Program, Station 11, 157 Capitol Street, Augusta, Maine 04330 287-5301

## DEFINITIONS

Animal Control: Control of dogs, cats, and domesticated or undomesticated animals in accordance with 7 MRSA section 3948.

Animal Control Officer (ACO): An Animal Control Officer or person acting in that capacity that is appointed periodically by municipal officers pursuant to 7 MRSA Chapter 725.



**Animal Damage Control Cooperator (ADC):** Also referred to as an ADC agent, a cooperating trapper or hunter certified by the Department of Inland Fisheries & Wildlife and operating as an agent of that Department for purposes of animal damage control.

**Currently vaccinated:** Domesticated animals are considered currently **vaccinated for rabies if at least 30 days has elapsed since the initial vaccination** and the duration of vaccination has not exceeded the time period recommended for that species and type of vaccine. NOTE: Any person who can legally obtain rabies vaccine may vaccinate their own animals, however vaccination by any person other than a veterinarian shall not be considered currently vaccinated. (Maine law requires a current Maine Certificate of Vaccination issued by licensed veterinarians for cats and dogs.)

**Decapitate:** To remove the head using methods recommended by the Department of Human Services. In the context of rabies control, decapitation of a domesticated animal is to be performed by a veterinarian or, in the case of an undomesticated animal, a veterinarian, game warden, animal damage control agent (ADC) or other trained person as per Inland Fisheries & Wildlife internal memorandum.

**Endemic:** A low level but consistent appearance of a disease in a given area; the level normally expected in the human population.

**Enzootic:** Is a less commonly used term than endemic for the same situation but is used in animal populations.

**Epidemic:** The occurrence of a disease clearly in excess of the expected or endemic level in the human population.

**Epizootic:** Is also used for the same situation as epidemic but is used in animal populations.

**Exposure:** Rabies can only be transmitted when the saliva or neural tissue of an infected animal is introduced into open cuts or wounds in a person's or animal's skin or has contact with the mucous membranes (e.g. mouth, nose, eyes). The two categories of exposure are:

1. **Bite:** Any penetration of the skin by an animal's teeth. Bites, in general, are high risk exposures. Bites to the face and hands carry the highest risk.
2. **Non-bite exposure:** Scratches, abrasions, open wounds or mucous membranes contaminated with saliva or neural tissue from a rabid animal constitute non-bite exposures. If the material containing the virus is dry the virus can be considered noninfectious.

**Incubation period:** The time from acquiring the virus (exposure) until disease signs appear.

**Livestock:** Horses, cows, sheep, goats, swine, domesticated deer or any other agricultural mammal.

**Observation:** Term used to describe the period of time (45 days) that a vaccinated domesticated animal is to be observed for signs of rabies after having been exposed to a suspected rabid animal.

**Owned animal:** Domesticated animals, as well as animals in petting zoos and circuses that have a known owner.

**Post-exposure prophylaxis:** Rabies immunization treatment after exposure to rabies, recommended to prevent the disease.

**Pre-exposure prophylaxis:** Rabies immunization treatment before exposure to rabies, recommended for individuals that come in frequent contact with animals.

**Prophylaxis:** The prevention of or protective treatment for disease, such as rabies immune globulin and rabies vaccine to prevent an exposed person from contracting rabies.

**Provoked attack:** An attack is considered “provoked” if a domesticated animal is placed in a situation such that an expected reaction would be to bite or attack. This would include, but not be limited to, invasion of an animal’s territory, attempting to pet or handle an unfamiliar animal, startling an animal, running or bicycling past an animal, assisting an injured or sick animal, trying to capture an animal or removing food, water, or other objects in the animal’s possession.

**Quarantine:** Term used to describe the period of time that a domesticated animal is to remain separate and apart from other animals and humans after having bitten or otherwise exposed another domesticated animal or human, or having been itself exposed to rabies.

**Rabies:** Rabies is a viral disease of the central nervous system (brain and spinal cord) caused by the rhabdovirus of the genus Lyssavirus, which infects animals.

**Stray animal:** A domesticated animal having no known owner.

**Susceptibility to rabies:** The likelihood of contracting the disease after exposure; it varies by species of animal.

**Suspect rabid animal:**

1. any mammal domesticated or undomesticated, showing signs of rabies;
2. any undomesticated mammal which has potentially exposed, through bite or non-bite exposure, a human or domesticated animal to rabies; or
3. any domesticated mammal which has bitten a human or domesticated animal.

**Transmammary:** Rabies virus can be transmitted through lactating mothers.

**Transplacental:** Rabies virus can be transmitted through the placenta of the mother to the unborn animal.

**Unprovoked attack:** An “unprovoked” attack or bite occurs when an animal strikes for no apparent reason. The behavior should be unusual for the particular animal. A confirmation of chronic aggressive behavior can often be made by interviewing the animal’s owner. This will assist in determining whether the attack was indeed “unprovoked.”

**Wildlife Hybrid:** Any mammal which is the offspring of the reproduction between any species of wild canid or hybrid wild canid and a domestic dog or hybrid wild canid, or is represented by its owner to be a wolf hybrid, coyote hybrid, coy dog or any other kind of wild canid hybrid.

## ABBREVIATIONS

|        |   |
|--------|---|
| ACIP   | Immunization Practices Advisory Committee                   |
| ACO    | Animal Control Officer                                      |
| ADC    | Animal Damage Control                                       |
| MEAgri | Maine Department of Agriculture, Animal Health and Industry |
| CDC    | Centers for Disease Control                                 |
| DFA    | Direct Fluorescent Antibody                                 |
| HDCV   | Human Diploid Cell Vaccine                                  |
| HEtL   | Health & Environmental Testing Laboratory                   |
| HRIG   | Human Rabies Immune Globulin                                |
| DHS    | Department of Human Services                                |
| IF&W   | Maine Department of Inland Fisheries & Wildlife             |
| MRSA   | Maine Revised Statutes Annotated                            |
| RVA    | Rabies vaccine adsorbed                                     |

# BIOLOGY OF RABIES

This section deals briefly with some of the facets of this disease. A thorough knowledge of the epidemiology of rabies, the characteristics of the virus and the manifestation of clinical signs is essential in formulating any rational approach aimed at managing a rabies crisis. A good veterinary textbook can be referred to for a more detailed description of the disease.

**Susceptibility:** All warm-blooded mammals (if it has hair or fur it's a mammal) are able to contract rabies, which is a viral disease. However, there are degrees of susceptibility:

- most susceptible: foxes, coyotes, jackals and wolves (NOTE: there is no data on the susceptibility of wildlife hybrids),
- high susceptibility: skunks, ferrets, raccoons, bats and cattle,
- moderate susceptibility: dog (domesticated), sheep, goats, horses and non-human primates.

Cats are much less susceptible than dogs, but more commonly involved in exposures because cats interact more with wildlife. According to the Centers for Disease Control, inconsistent use of vaccination in cats over the past years has been responsible for an increased incidence of feline rabies in recent years. The frequency of human rabies exposures attributable to cats is increasing at a greater rate than those associated with dogs. Some reports state that rabid cats are more likely than dogs to stalk and attack humans and other animals. Humans are relatively resistant to clinical disease. The risk of developing rabies following the bite by a proven rabid dog is estimated to be about 15% without post-exposure treatment. The incidence of clinical rabies among rodents (except woodchucks) and rabbits is extremely rare.

**Occasional occurrences:** Transplacental and transmammary infection can occur, so even baby animals cannot be guaranteed to be virus free. Aerosol infections in humans have occurred in bat caves. Infection has occurred by transplantation of contaminated corneas.

## **What is an exposure?**

1. A visible bite or significant scratch penetrating the skin from a confirmed, suspected, or potentially rabid animal,
2. A non-bite exposure is direct contact of a wound (one that has been bleeding within the previous 24 hours) or mucous membrane with potentially infectious material such as saliva or central nervous system tissue (i.e. brain or spinal cord) from a confirmed, suspected or potentially rabid animal,
3. Eating of any part of a confirmed or suspected rabid animal,
4. Aerosolized rabies virus (specifically in a bat cave or a research lab) has caused disease and is considered exposure.

**Incubation:** The period between exposure and the appearance of clinical signs:

Dogs - 2 weeks to 6 months (average 3-8 weeks)

Cats - 2 weeks to 6 weeks

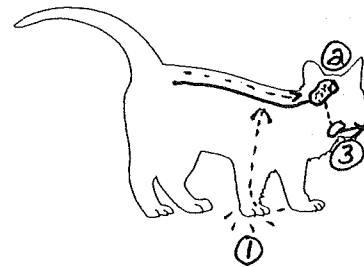
Humans - usually 3-8 weeks, rarely as short as 9 days or as long as 7 years

The incubation period for rabies is influenced by the strain of virus, species susceptibility, and the site of inoculation (bite). The spread of the virus in the central nervous system is relatively rapid (48 to 120 hours).

The incubation period for rabies in wild animals is unknown and extremely variable. Animals can acquire the virus not only through bites from a rabid animal, but also transplacentally (before birth); through transmammary (the mother's milk); and/or from eating a dead rabid animal. Once a wild animal gets rabies, it may incubate the disease for a long time without showing signs and may even shed the virus without ever becoming ill. So wild animals cannot be considered to be free of rabies even if purchased from a pet shop, acquired as a baby, or held for a long period of time.

**Clinical signs:** When a susceptible animal is bitten:

1. the virus travels up peripheral nerves to the spinal cord (this may take 9 days to 1 year),
2. the virus spreads throughout the spinal cord and brain (this takes 2-6 days),
3. the virus spreads from brain to other tissues, including the salivary glands.



Usually clinical signs appear 15 - 25 days after exposure but may take as long as one year. This is the reason for the long period of quarantine for animals bitten by an unknown attacker.

**Major stages of rabies:** Rabies infection has classically been divided into three major stages: prodromal, furious, and paralytic. Classical descriptions may be misleading however, as rabies can be quite variable in its presentation. Not all animals pass through all of the clinical stages and the animals may vacillate between stages.

1. Prodromal Stage:
  - may last 2-3 days,
  - subtle temperament changes,
  - mild fever,
  - self mutilation at bite site.
  - slow blink reflexes,
2. Furious Stage:
  - animal increasingly restless and irritable,
  - visual and auditory stimuli may trigger episodes of aggression and vocalizing,

- may roam long distances,
- may attack inanimate objects and eat odd substances,
- later muscular incoordination, disorientation, generalized (grand mal) seizures.

NOTE: Cats especially tend to show furious signs and aggression is common.

### 3. Paralytic Stage:

- usually appears 2 - 4 days after onset of clinical signs,
- laryngeal/pharyngeal paralysis leads to drooling trouble,
- eating, drinking, and breathing, and change in vocalization,
- final stage includes coma and respiratory paralysis leading to death,
- The longest recorded survival time in the paralytic stage was 7 days. Average duration of clinical signs is 3 - 5 days.

**Rabies virus in the environment:** The ability of rabies virus to survive depends on the surrounding environment. Normally, rabies virus cannot live long in a warm, putrefied environment, and survives in the body less than 24 hours after death. **However, under cool conditions (as in refrigeration) it may live for many days, and if the virus is frozen at -70°C, it can live for years.** Rabies virus is no longer active in dried saliva and is killed by bleach, ethyl alcohol, soap, detergent, and quaternary ammonium compounds.

**Diagnosis:** Rabies infection is often suspected because of the neurological signs that are present in an animal. However, due to the atypical nature of the disease, rabies should be considered in any animal that suddenly develops profound behavioral changes, or features of limb paralysis, or both.

In the State of Maine, the only accepted confirmation of a rabid animal is the Direct Fluorescent Antibody (DFA) of nervous tissue. The test is a rapid, sensitive and reproducible laboratory method for detecting rabies antigen in tissue. Fresh brain tissue is required. Tissue should be stored under refrigeration and should be maintained on wet ice for transport to the laboratory. (See section on rabies testing in this manual.)

It is not necessary that animals show neurological signs at the time of examination, and all animals excreting virus in their saliva should have detectable virus in the brain by DFA examination.

## DISEASES WHICH CAN RESEMBLE RABIES

There are many diseases found in both wildlife and domesticated species in the northeast that have clinical signs which resemble rabies. These include canine distemper, toxoplasmosis, larva migrans, lead poisoning, antifreeze poisoning, herpesvirus infection, listeriosis, eastern and western equine encephalomyelitis, and bovine spongiform encephalitis.

**Canine distemper:** A disease of the dog, raccoon and weasel families, caused by a virus which is antigenically similar to the measles virus of man. Distemper is a systemic disease that affects the nervous system and lining of the respiratory tract, skin, alimentary and urinary tract. The species most frequently affected in the northeast are dogs, mink, ferrets, foxes, skunks, and raccoons. Distemper poses no human health problem but is serious in non-vaccinated dogs and susceptible zoo animals and wildlife. Animals with distemper often display neurologic signs, many of which can be confused with the signs of rabies such as abnormal behavior, aggressiveness and disorientation. In addition, there may be discharge from eyes and nose, excess thickening of skin, nose and footpads, with formation of so-called "hard pad disease."

**Toxoplasmosis:** The protozoan *Toxoplasma gondii* affects most mammalian species, causing lesions in brain, lung, heart, liver, and placenta. Toxoplasmosis is a serious disease of the young, but usually a non-fatal disease in adult animals. It does not appear to be highly contagious and is most often contracted by eating the parasite in raw meat. Toxoplasmosis is common in many species of herbivorous and carnivorous wildlife. The clinical symptoms may resemble rabies or distemper. Cats do not show clinical symptoms of the disease but may pass the infected form of the parasite in their feces. This may be a danger to humans and animals if the parasite is ingested through improper handling of cat litter or soil contaminated with feces.

**Larva migrans:** Migrating nematode (roundworm) larva in inappropriate hosts produce parasitic granulomas in the brain, eye and other internal organs. Transmission is by ingestion of fecal material containing various nematode larva. Feces of raccoons, dogs, and cats with roundworms may produce larva migrans in humans, chickens, groundhogs, rabbits, and several other rodents. Groundhogs and rabbits occupying vacant carnivorous animal burrows from raccoons, skunks, and foxes may ingest infected eggs or larvae. The parasitic larval migration to the brain and eye may result in nervous disorders such as circling, head tilt, blindness or paralysis. The lesions in the nervous tissue may render the affected animal easy prey.

**Lead poisoning:** This is not infrequent in dogs and raccoons where it produces marked neurologic signs such as tremors, convulsions and blindness. Lead also has a toxic effect on red cells and hemoglobin production, resulting in anemia.

**Mercury poisoning:** This is primarily a disease of fish-eating carnivores such as mink, otter and cats; and in domesticated pigs from eating mercury-treated seed grains. The target organ is nervous tissue. The clinical signs of mercury poisoning are changes in posture reflexes, ataxia, blindness and paresis.

**Ethylene glycol (antifreeze) poisoning:** Intoxication of pets and raccoons by drinking antifreeze results in neurologic signs and death. Because of its sweet taste, most cases occur from drinking

leftover or drained antifreeze in the fall or spring, when animals may find it if not properly stored or discarded.

**Herpesvirus infection:** Species-specific herpesvirus occur in many species of domesticated and wild animals. They may cause fatal illness in very young animals. Man has a herpesvirus infection that causes cold sores in adults and occasionally viral encephalitis in the newborn.

**Listeria monocytogenes infection:** A non-contagious disease found primarily in farm animals, with sheep and cattle being most frequently affected, but it may be seen in other mammals including man and the red fox. The source of infection may be decaying vegetable matter, particularly silage. Listeriosis is not readily transmitted. The symptoms of this disease are neurologic and are similar to those of rabies or distemper, with circling, head tilt, stupor and paralysis.



# MUNICIPALITIES' RESPONSIBILITY TO RABIES CONTROL

## Goals of rabies control and prevention program:

1. To prevent human cases of rabies,
2. To prevent human exposure to actual or potential rabies situations, thereby averting the need for and expense of human post-exposure treatment,
3. To prevent rabies in domesticated animals.

**Response plan:** A local response plan, spearheaded by municipal officials, should be developed using input from appropriate members of the community: the public health officer, animal control officer, director of the animal shelter, representatives from each veterinary practice and hospital emergency departments in the area, a representative from the school system, a member of the police department, the local game warden, and others that the planning team may consider relevant. This committee should identify personnel and resources which can provide:

1. Education for school children and the general public to inform them of the risks and what steps they can take to protect themselves.
2. A strong animal control program enforcing dog licensing to limit stray animals and insuring compliance with vaccination laws for both dogs and cats.
3. A coordinated response team for dealing with rabies exposures, which will address how to deal with the animal involved (including wild animals) and its testing, as well as post-exposure treatment.

When situations of actual or potential rabies exposures occur, it is extremely helpful to have in place a network of people and facilities that can deal with each of the following details:

1. Capture of suspect rabid animals.
2. Euthanasia of suspect animals.
3. Deciding which animals are to be tested for rabies.
4. Decapitation of suspect animals.
5. Preparing and transporting carcasses to the HETL for testing.
6. Disposal of carcasses after decapitation.
7. Facilities which can quarantine dogs and cats which have exposed humans.
8. Personnel to oversee quarantine of owned animals.
9. Professionals who can act as sources of information to the public about rabies issues.
10. Establish a stray animal placement policy.

**Liability:** The municipality is responsible for expenses incurred in a rabies incident involving a stray domesticated animal. If the suspect animal is owned, the owner is responsible. (See 22 MRSA §1313-B in Part II of this manual.) Transportation and testing costs for wildlife is the responsibility of IF&W. The town, usually through the ACO, is responsible for arranging transportation of the animal to the HETL in Augusta.

**Establishment of a stray animal placement policy:** Adoption of dogs and cats is an extremely popular way for people to acquire pets. It is important that a policy be established by municipalities and animal shelters for handling their strays. The primary goal should be to protect the human population and to humanely care for the pet population. It would be unfortunate if all adoptions were eliminated due to a rabies panic and tragic, if an exposed animal were adopted out and then developed rabies. It is recommended that impounded, unclaimed stray animals should not be offered for adoption if they have the appearance of having been out in the wild for a considerable period of time, or if they have evidence of wounds of unknown origin. Vaccination status and any wound history should be obtained if possible and evaluated before offering the animal for adoption. If rabies is endemic to the area, adoptive owners should be warned of the threat, especially if their new pet has an unknown vaccination history. Information on rabies should be available to everyone visiting the facility. (See “Your New Pet and Rabies” in the Appendix.)

**Equipment for the ACO:** The right (good working) equipment is essential for an animal control officer to perform his/her duties. Listed below is equipment that is recommended to properly equip the animal control officer:

1. Animal handling gloves - thick bite-proof gloves, elbow length
2. Control pole
3. Muzzle
4. Leash
5. Training choke collar - adjustable chain collar
6. Non-injuring live trap
7. Stretcher or blanket
8. Large cage for transporting live animals
9. Official identification card
10. Printed warnings and calling notices
11. Dog/cat food, water, and containers to hold them
12. Flea spray
13. One gallon of bleach-equipment, cages and contaminated areas and surfaces should be washed with detergent and water, and disinfected with a freshly prepared solution of bleach (1/2 cup per gallon of water).
14. Long handle brush ( toilet bowl brush)
15. Rubber gloves, elbow length
16. Plastic sheeting or body bag
17. Waterproof container
18. Safety goggles or full face mask
19. Protective covering for clothing

Additional equipment is needed for controlling, capturing and transporting suspected rabid animals. Contaminated areas where the suspected rabid animal's saliva, brain and spinal cord tissues (and possibly blood if the saliva, brain or spinal cord tissues have been mixed together due to shooting or other means) must be secured from humans and animals. For additional information see the “Specimen Preparation (Decapitation) by Veterinarians” section at the end of Part I. Proper packaging and handling of dead suspect rabid animals is also located in the “Rabies Testing” section on page 39.

## RABIES RISK REDUCTION

**Education:** More than 80% of animal bites to humans are preventable. Over two-thirds of bites occur when humans are petting or feeding wildlife or domesticated animals that they do not know. Education for the general public can reduce or prevent human exposures to potentially rabid animals. Local town officials, including animal control officers and health officers, should make available to residents in their towns any information on rabies produced by the Maine Department of Human Services (DHS), the Department of Agriculture-Animal Health and Industry, the Maine Department of Inland Fisheries and Wildlife (IF&W), the Maine Veterinary Medical Association; the Maine Federation of Humane Societies; the Maine State Association of Veterinary Technicians and the Maine Animal Control Officers Association, as well as what is included in this manual.

Education for the general public should emphasize the following steps to decrease human exposure to rabies:

1. Avoid sick or strange acting animals and report them to the local animal control officer.
2. Vaccinate all cats and dogs against rabies, and vaccinate livestock when recommended by a veterinarian.
3. Do not pick up, touch or feed wild animals or unfamiliar animals. Do not leave pet food outside for any reason. Feeding wildlife not only increases the risk of rabies exposure but also is not healthy for the animals themselves. It permits animal populations to increase beyond normal limits and can lead to obesity, dental disease and unnatural social behavior.
4. Do not “rescue” seemingly abandoned baby wild animals. In most cases when a baby animal is found, the parent is nearby waiting for humans to leave. Attempting to raise young wild animals is very rarely successful and even if it is, you are left with a wild animal which does not know how to live in the wild.
5. Do not keep wild or exotic animals as pets. Maine State law requires a permit for wildlife rehabilitators and others having wild animals in their possession. Wildlife hybrids and ferrets are the exception in this state.
6. Use only animal proof trash cans. Don’t leave pet food outside. Garbage attracts wildlife.
7. Cap chimneys and seal openings and cut tree branches that provide access to houses, garages, etc., to prevent raccoons and bats from entering. Raccoons especially have adapted very well to living closely with humans. Although not normally seen due to their nocturnal habits, their numbers are often higher in suburban and urban areas than in more wooded spots due to the presence of food and nesting sites.
8. If bitten or scratched by any animal, one should promptly wash the wounds with soapy water for 10 minutes and see a health care provider immediately.
9. If a pet is bitten or scratched by another animal, gloves should be worn when handling or cleaning the wound. Afterwards, wash hands thoroughly. Contact a veterinarian to determine if the pet requires treatment, including a rabies booster.

10. Teach children to keep a safe distance from wildlife and strays.

**Pet vaccination:** A reduction in rabies in both humans and pets was not possible until widespread rabies vaccinations of dogs became available in the 1950's. Vaccination of dogs and cats provides an effective buffer zone between rabid wild animals and humans. It is extremely important that both dogs and cats are vaccinated and boosted at the appropriate time intervals to maintain proper immunity.

Maine law requires that all dogs and cats be vaccinated against rabies (MRSA Title 7, Section 3916 and Section 3922). Much of the effort at the local level to control transmission of rabies between animals and humans focuses upon compliance with vaccination requirements. Animal rabies vaccinations must be administered only by, or under the direct supervision of a licensed veterinarian. This is the only way to ensure that vaccines have been properly administered. Rabies vaccinations given by the owner/keeper of an animal are not acceptable; the animal will not be considered vaccinated in the event of a rabies exposure. A dog or cat is considered currently vaccinated if at least 30 days have elapsed since the animal's initial vaccination, and the duration of vaccination has not exceeded the time period recommended for that species and brand of vaccine.

All dogs and cats should ideally be vaccinated against rabies for the first time at three months of age. The animal's first booster (regardless of the age at initial vaccination) should be given one year later. The animal should then receive booster immunizations according to State Law. Cats must receive a state approved vaccination certificate. No tags or licensure are necessary at this time.

**Local animal control:** Management of stray and unwanted dogs and cats is also essential to a successful rabies control program. Please refer to rules and regulations attached in Part II. Every municipality is required by state law to have or work with a state licensed animal shelter (MRSA Title 7, Section 3949). It is unlawful for any dog, licensed or unlicensed to run at large (MRSA Title 7, Section 3911).

**Human vaccination:** Human *pre*-exposure rabies vaccine, given before exposure to the disease, is given as a series of three injections, in the arm, over a period of 3-4 weeks (on day 0, 7, 21 or 28). Pre-exposure prophylaxis is given for two reasons: first, to protect the person against an unknown exposure to the rabies virus, and second, to reduce the amount of treatment needed after a known exposure to rabies.

According to "Rabies Prevention-United States, 1991," published by the Immunizations Practices Advisory Committee (ACIP) of the Centers for Disease Control, Atlanta, pre-exposure rabies prophylaxis should be offered to persons working in high risk groups (such as those listed below) in endemic areas. The tables on the "Human Pre-Exposure Vaccination Guide" page located in this section provides more information on who should receive the vaccine, as well as a dosage schedule.

The ACIP recommends that for endemic areas that the following persons receive pre-exposure vaccine:

- animal control officers and any others involved in animal control
- veterinarians and staff
- animal shelter workers
- public safety officers primarily responsible for animal control
- dairy and livestock inspectors
- livestock and slaughterhouse workers
- taxidermists
- trappers
- wildlife rehabilitators
- students in livestock and animal technician programs requiring direct animal contact
- researchers using wild species of mammals, particularly if wild-caught
- rabies research lab workers
- rabies biologics production workers
- travelers visiting foreign areas for more than 30 days with enzootic canine rabies
- all others whose occupations bring them into close or constant contact with wild and /or domesticated animals

The rise of rabies in animals has led to an increase in the number of people who receive *post*-exposure treatment. While today's vaccine is extremely effective, easier to administer and less painful than in the past, it is very expensive. More than 20,000 people receive *post*-exposure prophylaxis in the U.S. every year at a cost of over \$50 million. The estimated cost per person for rabies post-exposure treatment is \$2000 to \$3,000. The cost of rabies *pre*-exposure treatment is a fraction of that cost. Information for physicians to obtain human diploid cell vaccine (HDCV), manufactured by Pasteur-Merieux Serum et Vaccine and distributed by Connaught Laboratories, Inc. is available by calling 1-800-VACCINE (800-822-2463), to obtain purified chick embryo cell vaccine (PCEC) call 1-800-Chiron8 (800-244-7668) or to obtain rabies vaccine adsorbed (RVA) call 1-800-877-1158.

**Wildlife control and management:** Inland Fisheries and Wildlife has jurisdiction over the management and control of all wildlife in Maine. Wildlife rehabilitators (who must be licensed) should use extreme caution when handling wildlife. If high-risk species are released, following care and rehabilitation, the release should be in the vicinity from where the animal was taken. This is a rabies control measure and also prevents the animal from being placed in another animal's territory.

The reduction of wildlife populations is not considered a viable approach to rabies management. Removal of specific animals from areas or where there is an increased risk to human safety may be considered by the Department of Inland Fisheries and Wildlife.

## HUMAN EXPOSURE TO RABIES

**Clean the wound:** Cleaning the wound is very important as it can actually prevent disease by killing the recently introduced virus before it has a chance to invade local nerves. Scrub the wound with soap and water for 10 minutes.

**Contact health care provider:** After cleaning the wound, the victim or parent should immediately contact a health care provider for treatment of the wound and evaluation for post-exposure treatment for rabies.

The physician should be provided with the following information which is required when deciding whether or not treatment is indicated:

1. the extent or severity of the exposure (see definition);
2. circumstances surrounding the bite (provoked vs. unprovoked – see definition);
3. whether the animal is wild or domesticated;
4. if wild, what species (raccoon, bats, foxes, and skunks are the most common carriers);
5. if wild, whether it is available for testing;
6. if domesticated, was it vaccinated or not;
7. if domesticated, whether it is available for quarantine or testing.

**Physicians are required to report rabies post-exposure prophylaxis treatment to the Maine Department of Human Services, Epidemiology Program, State House Station 11, Augusta, Maine 04333 or call: 1-800-821-5821.**

“Guide to Human Post-Exposure Treatment” which summarizes the Immunization Practices Advisory Committee (ACIP) approach to evaluation of human exposure follows in this section. Consultation for assessing the need for rabies post-exposure prophylaxis is available by calling the Acute and Infectious Epidemiology Program at 1-800-821-5821.

A second chart called “Animal Management When a Human is Exposed” also summarizes the approach to decision making and includes information for evaluating human exposures, initiating prophylaxis and submitting specimens for testing; and follows in this section.

After reviewing the circumstances surrounding the bite, the physician can determine the need for rabies treatment. The correct rabies post-exposure schedule will depend on whether or not the individual has ever received pre-exposure treatment; refer to “Human Post-Exposure Schedule of Treatment,” which follows in this section.

Rabies vaccines available in the United States are: human diploid cell vaccine (HDCV), purified chick embryo cell vaccine (PCEC), and rabies vaccine adsorbed (RVA). They are safe, effective, and require a series of only 5 injections given in the arm. The immune globulin available in the United States today is human rabies immune globulin (HRIG). It also is safe, effective, and only needs to be given with the first dose of rabies vaccine.

The animal bite report which appears in the Appendix section is recommended to be completed by the ACO and becomes a part of the incident report filed with the municipality's records.

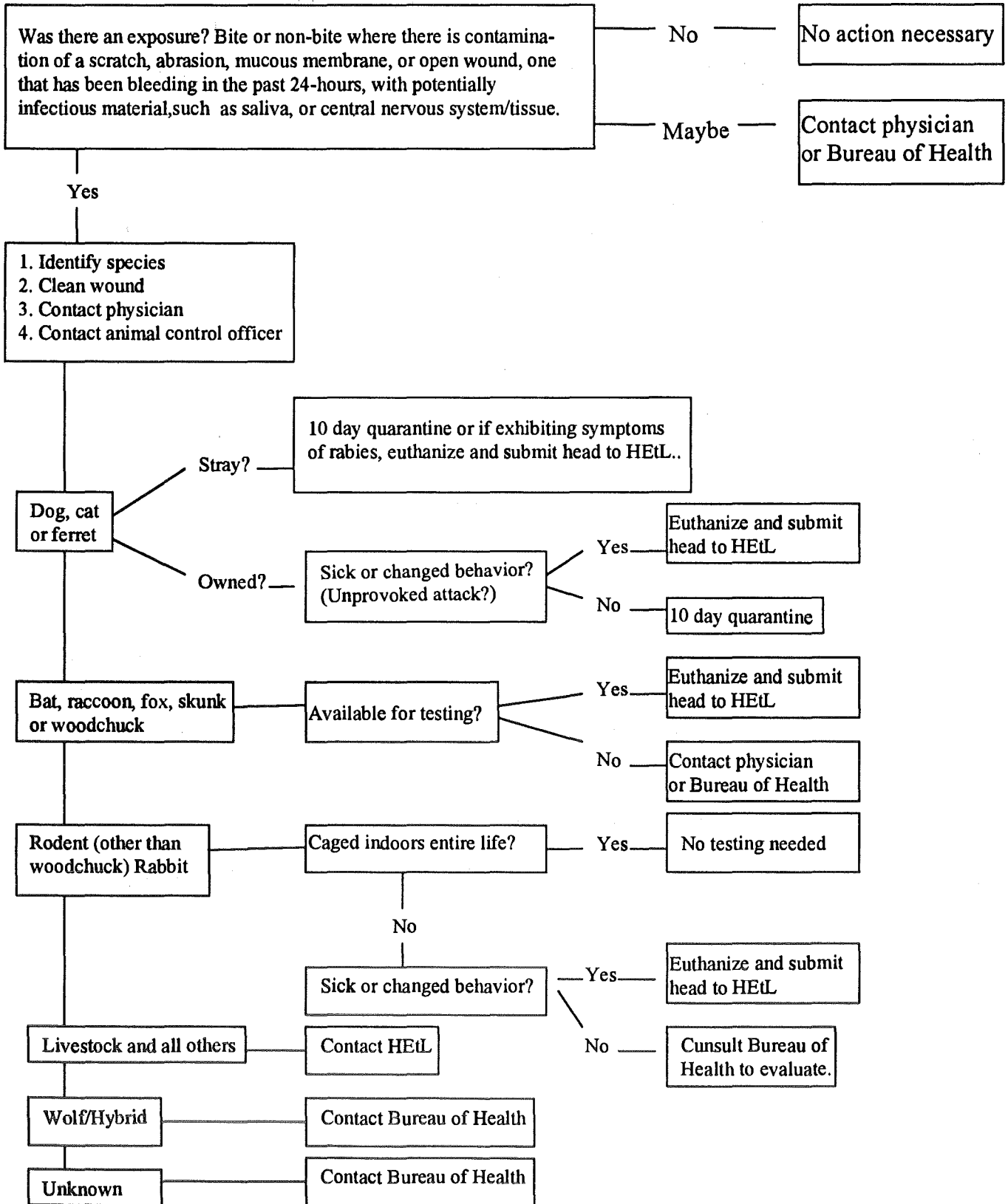
**Control of suspect animal:**

If an animal must be destroyed, it should never be shot in the head. The intact brain must be available if testing for rabies is warranted. The contaminated area in which the nervous system tissue, blood or saliva has splattered must be isolated from humans and animals until the live virus is dead or destroyed by natural sunlight (drying) or disinfecting. Freezing of tissue or saliva does not kill the virus.

A suspect animal which is captured alive should be managed according to post-exposure procedures as described according to Rules Governing Rabies Management - Part II of this manual.

The HEtL, (telephone (207) 287-2727) will perform rabies tests on wild or domesticated animals that have exposed humans or domesticated animals. All animals except bats should be decapitated.

# ANIMAL MANAGEMENT WHEN A HUMAN IS EXPOSED





## HUMAN PRE-EXPOSURE VACCINATION GUIDE

| <b>Risk Category</b>                          | <b>Nature of Risk</b>   | <b>Typical Populations</b>   | <b>Pre-exposure Recommendations</b>   |
|---|---|--|---|
| Continuous                                    | Virus present continuously often in high concentrations. Aerosol, mucous membrane, bite or non-bite exposure. Specific exposures may go unrecognized. | Rabies research lab workers (1), rabies biologics production workers.  | Primary course. Serologic testing every 6 months, booster vaccination when antibody titer falls below acceptable level (2). |
| Frequent                                      | Exposure usually episodic, with source recognized. Exposure may also be unrecognized. Aerosol, mucous membrane, bite, or non-bite exposure.           | Rabies diagnostic lab workers (1), spelunkers, veterinarians and staff, animal-control and wildlife workers in rabies enzootic areas. Travelers visiting foreign areas of enzootic rabies for more than 30 days. | Primary course. Serologic testing or booster vaccination every 2 years. (2)   |
| Infrequent (greater than population at large) | Exposure nearly always episodic with source recognized. Mucous membrane, bite, or non-bite exposure.  | Veterinarians, animal-control and wildlife workers in areas of low rabies enzooticity. Veterinary students.  | Primary course. No serologic testing or booster vaccination.  |
| Rare (population at large)                    | Exposures always episodic. Mucous membrane, or bite with source unrecognized.   | US population at large, including persons in rabies epizootic areas.   | No vaccination necessary.   |

- Judgment of relative risk and extra monitoring of vaccination status of laboratory workers is the responsibility of the laboratory supervisor.
- Minimum acceptable antibody level is complete virus neutralization at a 1:5 serum dilution by RFFIT. Booster dose should be administered if the titer falls below this level.

### HUMAN PRE-EXPOSURE VACCINATION SCHEDULE

| <b>Type of vaccination</b> | <b>Route</b> | <b>Regimen</b>   |
|----------------------------|--------------|--|
| Primary                    | IM           | HDCV, RVA or PCEC, 1.0 ml (deltoid area), one each on days 0,7, & 21 or 28 |
|                            | ID           | HDCV, 0.1 ml, one each on days 0,7, & 21 or 28                             |
| Booster (1)                | IM           | HDCV, RVA or PCEC, 1.0 ml (deltoid area) day 0 only                        |
|                            | ID           | HDCV, 0.1ml day 0 only   |

- Administration of routine booster dose of vaccine depends on exposure risk category as noted in the table above.

(Adapted from: CDC.MMWR 1991; No RR-3)

## GUIDE TO HUMAN POST – EXPOSURE TREATMENT

| Animal Type  | Evaluation and disposition of animal   | Post-exposure prophylaxis recommendations   |
|--|--|---|
| Dogs, cats, and ferrets  | Healthy and available for 10 day observation   | Should not begin prophylaxis unless animal develops symptoms of rabies (1)  |
|  | Rabid or suspected rabid   | Euthanize and test animal   |
|  | Unknown (escaped)  | Consult health care provider  |
| Skunks, raccoons, bats (2) foxes, and most other carnivores, including wild-life hybrids (3), woodchucks; opossums | Regarded as rabid unless geographic area is known to be free of rabies or until animal proven negative by laboratory tests (4) | Immediate vaccination, if tested positive for rabies or if unavailable for testing  |
| Livestock, rodents, and lagomorphs (rabbits and hares)   | Consider individually  | Consult HETL. Bites of squirrels, hamsters, guinea pigs, gerbils, chipmunks, rats, mice, other rodents, lagomorphs almost never require anti-rabies treatment (5) |

1. During the 10-day holding period, begin treatment with Human Rabies Immune Globulin (HRIG) and Human Diploid Cell Vaccine (HDCV) or rabies vaccine adsorbed (RVA) at first sign of rabies in a dog or cat that has bitten someone. The symptomatic animal should be killed immediately and tested.
2. Since the size of bites or scratches by bats may be very small, it may be prudent to consider post exposure treatment after any physical contact with bats when a bite, scratch, open wound or mucous membrane exposure cannot be excluded.
3. Wildlife hybrids, regardless of vaccination history, should be considered as wild unvaccinated animals.
4. The animal should be killed and tested as soon as possible. Holding for observation is not recommended. Discontinue vaccine if immunofluorescence test results of the animal are negative.
5. Rodents and lagomorphs:
  - a. Healthy caged rodents and lagomorphs: For example, hamsters, gerbils, rats, mice, and rabbits which have been caged exclusively indoors for the past 6 months or more, pose no risk. Treatment would not be recommended for the exposed person.
  - b. Wild rodents and lagomorphs rodents, or lagomorphs caged outdoors: These animals are unlikely to have rabies. However, each exposure needs to be evaluated on an individual basis.
  - c. Provoked bite: If the bite was provoked (such as through feeding, petting, or playing with the animal) experts would not recommend treatment. However, since rare cases of rabies in rodents do occur, it is reasonable to submit the animal for testing.
  - d. Unprovoked bite: If the bite was unprovoked or the animal appeared unhealthy, it should be submitted for testing. If the animal is unavailable for testing, treatment would be considered by the physician and the patient.

## HUMAN POST EXPOSURE SCHEDULE OF TREATMENT

**TABLE 1. Type of treatment and regimen for rabies postexposure prophylaxis, by vaccination status**

| Vaccination status                 | Treatment                           | Regimen*   |
|------------------------------------|-------------------------------------|--|
| Not previously vaccinated          | Local wound cleansing               | All postexposure treatment should begin with immediate thorough cleansing of all wounds with soap and water.   |
|                                    | Human rabies immune globulin (HRIG) | 20 IU per kg body weight. As much as possible of the full dose should be infiltrated into and around the wound(s), and the remainder should be administered intramuscularly at an anatomical site distant from vaccine administration. HRIG should not be administered in the same syringe as vaccine. Because HRIG may partially suppress active production of antibody, no more than the recommended dose should be given. |
|                                    | Vaccine                             | 1.0 ml of human diploid cell vaccine (HDCV) rabies vaccine adsorbed (RVA), or purified chick embryo cell culture (PCEC) vaccine administered intramuscularly (deltoid area <sup>†</sup> ), on days 0, 3, 7, 14, and 28 (day 0 indicates the first day of treatment).   |
| Previously Vaccinated <sup>§</sup> | Local wound cleansing               | All postexposure treatment should begin with immediate thorough cleansing of all wounds with soap and water. HRIG should not be given.   |
|                                    | Vaccine                             | 1.0 ml of HDCV, RVA, or PCEC administered intramuscularly (deltoid area <sup>†</sup> ) on days 0 and 3.  |

\* These regimens are applicable for all age groups, including children.

† The deltoid is the only acceptable site of vaccination for adults and older children. For younger children, the outer aspect of the thigh may be used. Vaccine should never be administered in the gluteal area.

§ Any person with a history of pre-exposure vaccination with HDCV, RVA, or PCEC; previous postexposure prophylaxis with HDCV, RVA, or PCEC; or previous vaccination with any other type of rabies vaccine and a documented history of antibody response to the previous vaccination.

## MANAGEMENT OF DOGS, CATS AND FERRETS WHICH BITE HUMANS

**10 day quarantine:** All apparently healthy dogs, cats and ferrets, regardless of vaccination status which bite humans (or otherwise potentially expose a human to rabies) must be quarantined for 10 days, thereby separating the animal from humans and other animals, for the purpose of observing for signs of rabies and preventing the animal from spreading the disease. Owners of quarantined animals should be given information about rabies and quarantine conditions. (See “Quarantine Notice” and “Rabies Advisory Notice” in the Appendix.) If rabies virus were present in the saliva at the time of the bite, the biting animal would most likely be exhibiting obvious symptoms of rabies already, or would be expected to do so within the next ten days. Remember that the rabies virus does not migrate to salivary glands until after it has reached the brain. If the biting dog, cat or ferret is healthy for a period of 10 days following the bite, rabies virus was not in the saliva at the time of the bite.

Animals which are not euthanized before the end of the 10-day period must be examined by a veterinarian; if healthy, the animal should be vaccinated or boosted for rabies, if needed, before release from quarantine. The compendium suggests not vaccinating for rabies during this 10-day period. If biting dogs or cats are unavailable for quarantine, a physician should be consulted about possible rabies treatment of the exposed human.

### **Owned dogs, cats and ferrets:**

Must be quarantined for 10 days either at a state licensed boarding kennel, a veterinary hospital, or at home under the conditions of quarantine.

**Stray dogs, cats, and ferrets:** Stray dogs, cats, and ferrets which potentially expose humans must be quarantined for 10 days in a state licensed animal shelter; or with the approval of the HETL and the municipality (since any expenses for decapitation, transport and testing are the municipalities’ responsibility), stray cats may be euthanized immediately for testing and dogs may be euthanized after eight days for testing. State law requires stray dogs to be held eight days before euthanasia.

**Sick and unusual behavior in animals:** All dogs, cats, and ferrets showing signs of rabies (i.e. unprovoked aggression, impaired locomotion, paralysis, depression, etc.) at the time of human exposure must be examined by a veterinarian to determine if quarantine or euthanasia and testing is appropriate, whether the animal is vaccinated or not. If any animal begins to show any unusual behavior during quarantine, it must be immediately examined by a veterinarian. If signs are compatible with rabies, the animal must be euthanized, decapitated if necessary by a veterinarian, and the head submitted for testing.

## **DOGS, CATS, OR FERRETS EXPOSED TO RABIES**

### **Quarantine**

The dog, cat, or ferret:

- a. must be kept on the owner's premises in an escape-proof building or enclosure (house, garage, etc.) at the responsibility of an adult owner/keeper under the supervision of the local ACO, or in a state licensed boarding kennel or veterinary clinic;
- b. may not be allowed to run at large, or left outside unsupervised where it may come in contact with other animals, as in a fenced yard or on a chain;
- c. can only be off the owner's property under the immediate control of an adult owner/keeper, meaning on a leash or in a carrier or appropriate animal crate;
- d. should not be permitted to have contact with other animals or people;
- e. if quarantined at home, cannot be off the owner's property unless being taken to a veterinary hospital for examination or euthanasia.

## QUARANTINE PERIODS

**10 day period:** Used for the period of observation necessary after a vaccinated or unvaccinated dog, cat or ferret bites or otherwise exposes a person to rabies. If the rabies virus is present in the animal's saliva at the time of the exposure, the animal will develop symptoms of rabies within 10 days. At the first sign of illness in the quarantined animal, it will be checked by a veterinarian.

**45 day period:** Used when a currently immunized dog, cat or ferret is exposed to a rabid or suspect rabid animal. This quarantine period is necessary because no vaccine is 100% effective, and therefore, it is possible for such an animal to contract rabies. Because rabies is most likely to become apparent within 1-45 days after exposure, this quarantine period is set at 45 days. It is routine to booster these pets with rabies vaccine as soon as possible after exposure.

**Six-month period:** Used when a dog, cat or ferret without current immunization is known or suspected to be exposed to a rabid or suspect rabid animal. This situation is of the greatest concern to public health officials because of the much greater possibility that a domesticated animal will come down with rabies if it is unimmunized. Although one would expect onset of illness within 45 days, there have been documented cases where this has occurred in unimmunized pets 5-6 months after exposure. Accordingly, this period of strict quarantine is set at six months to cover all expected possibilities. It is recommended that these animals be immunized against rabies at month five (i.e., one month prior to release date of quarantine).

### **In all conditions:**

- a. If the animal shows any changes in health or behavior, it must be examined by a veterinarian, who will determine if rabies testing is indicated.
- b. If the animal escapes, notify the local ACO immediately.
- c. Do not sell, give away, euthanize or otherwise dispose of the animal during the quarantine period without prior permission from the ACO.
- d. Animals must be examined by a veterinarian at the end of the quarantine period.

## MANAGEMENT OF DOGS, CATS, AND FERRETS EXPOSED TO RABIES

| Exposure Category  | Vaccinated  | Non-Vaccinated  |
|--|---|---|
| Direct contact or visible bite from <b>known</b> rabid animal  | <ol style="list-style-type: none"> <li>1. Booster immediately*</li> <li>2. Notify ACO</li> <li>3. Quarantine and observation for 45 days</li> </ol> | <ol style="list-style-type: none"> <li>1. <b>EUTHANIZE</b></li> <li>2. If owner unwilling:               <ol style="list-style-type: none"> <li>a. Notify ACO</li> <li>b. Quarantine for 6 months</li> <li>c. Vaccinate 1 month before release</li> </ol> </li> </ol> |
| Direct contact with or visible bite or wound from <b>suspect</b> rabid animal (unavailable for testing)  | <ol style="list-style-type: none"> <li>1. Booster immediately*</li> <li>2. Notify ACO</li> <li>3. Quarantine and observation for 45 days</li> </ol> | <ol style="list-style-type: none"> <li>1. <b>EUTHANIZE</b></li> <li>2. If owner unwilling:               <ol style="list-style-type: none"> <li>a. Notify ACO</li> <li>b. Quarantine for 6 months</li> <li>c. Vaccinate 1 month before release</li> </ol> </li> </ol> |
| Wound of unknown origin: <b>suspicious</b> scratch, bite, abscess or wound                               | <ol style="list-style-type: none"> <li>1. Booster immediately*</li> <li>2. <b>Observation</b> for 45 days</li> </ol>                                | <ol style="list-style-type: none"> <li>1. Quarantine for 6 months</li> <li>2. Vaccinate at once with killed rabies vaccine</li> </ol>   |
| Exposure by proximity (seen near or in same vicinity of known rabid animal)- <b>no contact</b> or wounds | <ol style="list-style-type: none"> <li>1. Consider booster*</li> <li>2. <b>Observation</b> for 45 days</li> </ol>                                   | <ol style="list-style-type: none"> <li>1. Vaccinate at once</li> <li>2. <b>Observation</b> for 6 months</li> </ol>  |

**Always wear gloves when handling saliva-contaminated wounds or fur.**

**Always advise owner of rabies risk.**

**Always record any potential rabies contact case.**

\*If most recent rabies vaccination was given within 1 month, it is not necessary to re-vaccinate.

**Currently vaccinated animals:** animals are considered currently vaccinated for rabies if at least 30 days has elapsed since the initial vaccination, and the duration of vaccination has not exceeded the time period recommended for that species and brand of vaccine.

**Unvaccinated animals:** An unvaccinated animal is defined as: an animal with no previous rabies vaccination, one whose first vaccination was given within the last 30 days, one whose last vaccination has expired (per vaccine manufacturer's recommendations), or no approved vaccine exists for the species.

## LIVESTOCK

All mammalian species of livestock are susceptible to rabies; cattle and horses are among the most frequently infected of all livestock.

### Signs of Rabies

**Cattle:** The signs of rabies in cattle vary, but some of the following will be found in virtually all animals:

1. Straining and repeated efforts to urinate or defecate; the signs may be confused with the typical straining seen at calving.
2. Paralysis, often starting in the hindquarters, very often in one leg only, with a typical knuckling of the fetlock joint.
3. Loss of appetite and the abrupt cessation of lactation often confused with an intestinal disturbance such as impaction of the rumen or rectum.
4. Because of developing paralysis, animals may appear to be “choked,” under no circumstances should anyone put their hands in the oral cavity of these animals in an attempt to examine or medicate.
5. Altered facial expression, a very tense alert appearance, and the bells of the ears thrown forward. The eyes are wide open and follow any moving object with a fixed stare.
6. Bellowing is common. The head is extended, the back arched, the flanks tucked in, and a hoarse, sometimes high-pitched bellow is emitted.
7. Salivation occurs in less than half the animals affected, and is usually seen as a drooling from the mouth rather than profuse salivation.

Rabies in livestock may also produce increased sexual excitement, especially in cattle, with bulls attempting to mount inanimate objects.

**Horses:** Infected horses exhibit obvious behavioral changes, the majority showing signs of dullness and depression more often than excitement or mania. Frequently, horses become recumbent and wildly scramble and thrash, or appear paralyzed. Death rapidly follows within three to five days of the onset of clinical signs.

**Pigs:** Pigs may show excitement and a tendency to attack, or dullness and incoordination. Affected sows may show twitching of the nose, rapid chewing movements, excessive salivation and convulsions.

**Sheep:** Rabies may occur in several animals in a sheep flock, since they are more easily bitten by rabid carriers (skunks, foxes and dogs), but may show the onset of symptoms at different times.

**Livestock Vaccination:** There are vaccines available for horses, sheep and cattle. They can be vaccinated as soon as three months of age, and revaccinated in accordance with vaccine manufacturer’s recommendations.



According to the Compendium of Animal Rabies Control it is neither economically feasible nor justified from a public health standpoint to vaccinate all livestock against rabies. However, consideration should be given to the vaccination of certain livestock, especially animals which are particularly valuable and / or may have frequent contact with humans, or which are kept in areas where wildlife rabies is known to exist. A licensed veterinarian should be consulted on the advisability of livestock vaccination. MEAgri, Maine Dept. of Agriculture, Animal Health and Industry, can also provide information on vaccines for specific species.

The following definitions should aid in assessing the vaccination status of livestock. In all cases, animals are considered vaccinated only if vaccinated by a licensed veterinarian or vaccinated under the direct supervision of a licensed veterinarian. Records must be signed by the licensed veterinarian, which include the date of vaccination, the type of vaccine used, and the animal identification. Metal eartags are considered positive identification for livestock. Positive identification for horses might be a drawn picture similar to a Coggins test chart, a photograph, a tattoo or a veterinarian's record. T.B.test chart or similar form may be used for this record keeping. A veterinarian's record may be more practical for individual animals. The State provides an official vaccination certificate on request.

**Currently vaccinated:** Animals are considered currently vaccinated for rabies if at least 30 days has elapsed since the initial vaccination, and the duration of vaccination has not exceeded the time period recommended for that species and brand of vaccine.

**Unvaccinated:** Animals are considered unvaccinated if:

1. No approved vaccine exists for the species (see Compendium of Animal Rabies Control).
2. The animals are vaccinated by someone other than a licensed veterinarian in accordance with the requirement above.
3. The vaccination is not within the time frame listed above.

**Livestock which expose humans or show signs of rabies:** Common livestock are not usually at high risk for transmitting rabies to humans. If livestock bite, scratch, or otherwise expose a human, many factors should be considered, primarily: the animal's health and behavior, its vaccination status, and whether rabies is endemic in the area. HETL should be consulted when humans are bitten by livestock.

Healthy animals which are currently vaccinated for rabies, and which are exhibiting normal behavior, should be quarantined for 10 days.

Healthy animals which are unvaccinated and are kept in a locality free of rabies, should be quarantined for 10 days. In areas where rabies is endemic, these animals should be evaluated by a veterinarian for possible euthanasia and testing.

Quarantined livestock should be isolated in a secure stall or separate pen apart from other animals for 10 days. Human contact should be minimal. If the animal escapes and is unable to be observed for the 10-day period, the Bureau of Health should be notified immediately. Quarantines will be the direct responsibility of the owner however an ACO may monitor the quarantine.

Provided that the quarantined animal does not exhibit signs of rabies, the following is permitted:

1. Milking of rabies vaccinated dairy cows.
2. Shearing of sheep.
3. Slaughter for food use, provided that 21 days have passed since the last rabies vaccination.

If quarantined livestock exhibits abnormal behavior at any time during the 10-day period, a veterinarian should examine the animal to determine if euthanasia and testing is warranted.

If the animal is euthanized or dies before the end of the 10-day quarantine period, it must be decapitated by a veterinarian and the head sent to the HETL for rabies testing.

NOTE: No scientifically proven period of quarantine (like the 10-day period for dogs and cats) exists for livestock. However, many states, including the other New England states, use a 10-14 day quarantine period based upon their experience with rabies management. According to several Public Health Veterinarians, there is no reason to expect a long viral excretion state in livestock.

Livestock showing signs of abnormal behavior in areas where rabies is known to exist should be suspected of rabies. (See section on signs of rabies in livestock.) A veterinarian should examine such animals and determine if euthanasia and testing is warranted.

Rendering of animals showing signs of rabies, or confirmed with rabies, is prohibited. In all questionable cases of livestock human exposure the HETL should be consulted.

**Livestock exposed to rabies:** All livestock rabies exposures must be reported to the AGARR, Division of Veterinary Services and the ACO of that town. The decision on how to handle exposed livestock will be based on the likelihood of rabies in the animal or herd.

1. A confirmed exposure exists when evidence (such as teeth marks or wounds) indicates that direct contact has been made with a rabid animal or its brain or nervous tissue or saliva.
2. A suspected exposure exists when a rabid animal was observed in the vicinity of livestock with potential for direct contact.

**Unvaccinated livestock with confirmed exposure:**

1. It is recommended that the animal be immediately destroyed. The MEAgri, Maine Dept. of Agriculture, Animal Health and Industry, must give permission to move these animals from the farm.
2. Meat from the animal can be used for human consumption up to one week post-exposure. (The animal should be destroyed and buried after that time) An ample piece of muscle should be removed from the site of the wound.
3. Federal slaughter plants cannot take exposed animals within 240 days (8 months) of exposure. Thus livestock must be slaughtered on the farm.

4. If the animal is not destroyed, it must be quarantined in a secure stall or separate pen apart from other animals for 180 days (6 months). Human contact should be minimal. Milk from the animal cannot be used. This quarantine is the responsibility of the owner, and the owner assumes all associated risks. The ACO may monitor this quarantine.

**Unvaccinated livestock with suspected exposure:**

1. The animal should be observed for 180 days (6 months). Milk from the animal should only be used if pasteurized. Raw milk should not be used for 6 months.
2. The animal may be sold (including for slaughter) if not exhibiting any signs of rabies. The buyer must be made aware that the animal is under rabies observation. The MEAgri, Maine Dept. of Agriculture, Animal Health and Industry, must give permission to move these animals from the farm.

**Vaccinated livestock with confirmed exposure:**

1. The animal should be revaccinated immediately. The animal should be quarantined in a secure stall or pen apart from other animals for 45 days. Me. Dept. of Agriculture, Division of Animal Health and Industry, must give permission to move the animal from the farm. Quarantine is the responsibility of the owner, and the owner assumes all associated risks. The ACO may monitor the quarantine.
2. Milk from the animal should be pasteurized. Raw milk should not be used.
3. Animal may be slaughtered within seven days of exposure for human consumption. Federal slaughter plants cannot take exposed animals (vaccinated or not) within 240 days of exposure, thus the animal must be slaughtered at the farm.
4. No animal may be slaughtered within 21 days of rabies vaccination.

**Vaccinated livestock with suspected exposure:**

1. The animal should be revaccinated immediately.
2. Milk and meat from these animals should be safe for consumption.
3. No animal may be slaughtered within 21 days of rabies vaccination.

**Livestock in quarantine:** If an animal exhibits abnormal behavior at any time during quarantine, a veterinarian should examine the animal. If it is determined to be showing signs of rabies, the veterinarian should decapitate the animal and submit the head for rabies testing. Any animal, which dies of unknown causes during the quarantine period, should also be considered for rabies testing. An animal in quarantine should not be sold, given away, euthanized or otherwise disposed of without prior permission from the Maine Dept. of Agriculture, Animal Health and Industry.

**Liability:** Any expenses incurred due to rabies exposure of livestock (including decapitation, transportation, and quarantine) are the responsibility of the owner.

## WILDLIFE HYBRIDS

**Vaccination:** There is no rabies vaccine licensed for use in wild animals crossbred to domesticated animals, including wolf hybrids. There have been no scientific studies to show that canine rabies vaccine will prevent rabies infection in a wolf hybrid. It is UNKNOWN if vaccinating a wolf hybrid for rabies provides protection or simply a false sense of security. The IF&W currently regards wildlife hybrids as “domesticated animals,” therefore they fall under state dog regulations and must be licensed. However, since there is no vaccine approved for wildlife hybrids, veterinarians and owners must make an individual decision on whether to inoculate these animals. The American Veterinary Medical Association strongly advises that all veterinarians require a client to sign an “informed consent” release form before vaccinating a wildlife hybrid. **EVEN IF A HYBRID ANIMAL IS VACCINATED, IT WILL NOT BE CONSIDERED SO IN THE EVENT IT IS INVOLVED IN A POSSIBLE EXPOSURE INCIDENT.**

**Wildlife hybrids which expose humans or show signs of rabies:** As with other wild animals, the length of time required for a wildlife hybrid to start showing signs of rabies after it becomes exposed (the incubation period) is unknown. Therefore, in the event of a human or domestic animal exposure, wildlife hybrids, whether vaccinated or not, will be euthanized and tested for rabies. As with other situations involving animals which potentially expose a human to rabies, the Bureau of Health should be consulted.

**Wildlife hybrids exposed to rabies:** All wild animals (including wildlife hybrids) exposed to rabies must be euthanized immediately, whether vaccinated or not. The Bureau of Health should be consulted.

**Wildlife hybrids biting domesticated animals:** A wildlife hybrid, which bites a domesticated animal, will be euthanized and tested for rabies if recommended by the Department of Human Services.

## **BAT ENCOUNTERS**

### **Where do most common bats roost?**

The big brown bat and the little brown bat are the common house bats that roost during spring and summer in attics, behind shutters and in other sheltered areas of human dwellings and outbuildings (barns, garages, etc.). In such locations, large numbers of bats, sometimes 500 or more, are often seen, generally in nursery colonies composed of females and, after early June, their young. These bats leave the roost at dusk to feed on flying insects, and may return during the night for a period, and return again in the morning. In the fall, essentially all these bats leave the roost to hibernate in caves and mines for the winter.

### **Do all bats carry the rabies virus?**

No. Most bats are healthy and contribute to our environment in many ways, particularly by consuming insect pests. Less than 1/2 % (1 out of 200) of bats randomly sampled are positive for the rabies virus.

### **If one bat in the colony is rabid, are all the other bats rabid?**

No. One rabid bat in a colony does not mean the entire colony is infected. Testing other members of the colony rarely results in finding another rabid bat.

### **Can bat rabies be transmitted to other mammals?**

Yes. Bat rabies is generally independent from rabies in terrestrial mammals, but transmission from bats to other wildlife, unvaccinated domestic animals and humans can occur. Bat rabies strains have been found in grey foxes, domestic cats and livestock in areas, which were otherwise free of terrestrial animal rabies. In those cases, the virus detected in the infected animal was the bat rabies virus.

### **Can bats transmit rabies without showing signs of sickness?**

There is no evidence that bats can transmit rabies for an extended period without being ill. Bats, like other mammals, become sick and eventually die from the disease. Bats infected with rabies may have the virus in their saliva and may transmit the disease to humans and other animals. This type of exposure most commonly occurs through a bite.

### **How can someone tell whether a bat has rabies?**

Rabid bats may show abnormal behavior, such as extended outdoor activity during daylight; rabid bats may be grounded, paralyzed or may bite a person or animal. Not all rabid bats act abnormally, but bats that do are more likely to have rabies.

### **Do rabid bats attack? Do they usually bite?**

Rabid bats rarely attack humans. But, because rabies can occur anywhere and because rabies can be fatal, any contact with bats should be strictly avoided. Each contact with a bat should be managed by health authorities.

### **What should I do if I encounter a bat?**

First, determine if there is any possibility that human, or domestic animal contact with the bat has occurred. Contact would include:

- a bite, scratch, or other direct contact with the bat through a break in the skin or through the mucous membranes of the eyes, nose or mouth.
- a bat has been in close proximity to an unattended young child, or a sleeping or impaired person.
- a bat is found in a room with an unattended pet.
- a pet, usually a cat or dog, is found carrying a live or dead bat in its mouth.

If such possibilities cannot be ruled out, **capture the bat**, carefully avoiding direct contact with it and without damaging its head. To capture the bat, close windows, the room and closet doors, turn on dim light if room is dark, and wait for the bat to land. Wearing gloves, cover the bat with a coffee can or similar container. Slide a piece of cardboard under the can trapping the bat. Tape the cardboard tightly to the can. Immediately contact your local Animal Control Officer or Game Warden to assist in arranging for rabies testing of the bat at the State's Health and Environmental Testing Laboratories in Augusta.

**REMEMBER, IF THERE IS POSSIBILITY OF HUMAN OR PET CONTACT, CAPTURE THE BAT AND ARRANGE TO HAVE IT TESTED FOR RABIES.**

### **What if the bat is not available for testing?**

If it is suspected that a bat had close contact with a human and the bat could not be captured for testing, rabies treatment will be recommended if possible contact has taken place. Domestic vaccinated animals will receive a booster dose of vaccine, unvaccinated pets will need to be quarantined for 6 months or euthanized.

**If you have confirmed there was no possibility of human or domestic animal contact with the bat, it can be allowed to leave on its own, or if it is in your home, it can be released.** Close the room and closet doors, open windows, turn on a light and observe the bat until it leaves. If the bat does not leave, wait for it to land. While wearing gloves, cover the bat with a coffee can or similar container. Slide a piece of cardboard under the can trapping the bat. Tape the cardboard tightly to the can. If you are certain there was no contact while capturing the bat, release it out of doors, away from populated areas and preferably after dark.

### **What can be done to keep bats out of a home or other buildings?**

Unnecessary killing of bats is not environmentally sound, humane, or a permanent solution to the problem. Using chemicals or pesticides creates a risk of long-term toxic exposure to humans and causes sick or dying bats to be grounded in the community, further increasing the chance of contact with people and pets. No toxicant is legally registered for use against bats.

Bats should be kept out of places where there is a high risk of contact with humans or pets (for example, schools, hospitals, prisons, and homes) by closing or covering openings that allow entry to the roost. Talk to a professional exterminator or contractor about "bat proofing" your home.

## RODENTS AND RABBITS

**Vaccination:** No rabies vaccine is licensed for use in wild or domesticated rodents (squirrels, hamsters, guinea pigs, chipmunks, gerbils, rats and mice) or lagomorphs (rabbits and hares). If housed outdoors, wire areas should be double-walled to prevent wild animals from reaching through the wire.

**Rodents and rabbits which expose humans or show signs of rabies:** Rodents and lagomorphs are not commonly found to be infected with rabies. Healthy caged rodents (such as hamsters, gerbils, rats and mice) and rabbits which have been caged exclusively indoors for the past six months or more and which have not been exposed to any potentially rabid animal pose no risk. Treatment would not be recommended for the exposed human.

Rodents and rabbits, which have been caged or kept outdoors, may possibly be exposed to free roaming rabid animals. If a human is exposed to rabies by a rodent or rabbit caged or kept outdoors, submitting the animal for testing must be considered; the HETL should be consulted. Domesticated rodents and rabbits showing behavioral changes or neurological impairment should be examined by a veterinarian to determine if rabies testing is indicated.

In states reporting raccoon rabies, woodchucks have tested positive for rabies more frequently than other rodents in the current epizootic in the northeast. In 1997, the Maine HETL identified 7 woodchucks as positive for rabies. Exposure to a woodchuck should, therefore, be treated as with other high-risk species.

**Rodents and rabbits exposed to rabies:** In the mid-Atlantic epizootic, a small number of rodents and lagomorphs (rabbits and hares) are found each year to be rabid. If these animals are themselves exposed to a rabid or suspect rabid animal, they should be euthanized.

## WILDLIFE

Direct contact between wild animals and humans or their domesticated animals which could lead to potential rabies infection is uncommon. Such contact that **does** occur should be treated as a potential rabies exposure.

Common indications of rabid wildlife include any or all of the following: absence of fear, matted fur, discharge from eyes or nose, incoordination. Bats, raccoons, foxes, and skunks are more likely to carry rabies. Young (newborn) of these animals may contain the rabies virus and could transmit the virus to handlers. Feeding, relocating, or other handling of any wildlife without specific permits or licenses is strongly discouraged or prohibited by law. Department of Inland Fisheries and Wildlife is responsible for the management and protection of wildlife resources in Maine, including the possession, transportation, rehabilitation or destruction of wild animals. Game Wardens have specific responsibilities relating to rabies incidents involving wild animals. Registered Animal Damage Control Cooperators are available to assist the Department.

Emergencies, including possible or potential rabies exposure to humans or pets should be reported to Wardens or State Police. An official will respond as rapidly as possible and carry out the necessary functions to protect people, capture or destroy a wild animal, and ensure that proper handling and testing is performed. However, if an official response is delayed, or in the absence of a Game Warden, emergency removal of injured or ill wildlife may be carried out by an ACO, wildlife rehabilitator, registered animal damage control cooperator, police officer or other responsible and qualified individual on the scene. The action must be reported to the warden service.

Registered animal damage control cooperators (ADC) and licensed wildlife rehabilitators are not employees of the IF&W, and are under no obligation to respond; they may charge a fee for services. Fees charged for approved services relating to rabid wildlife may be paid by IF&W. Generally such an agreement must be approved beforehand. For the names and addresses of the registered animal damage control cooperators and licensed wildlife rehabilitators in your area contact your local game warden or see the contact numbers in the beginning of this manual. For more information, see sections on Rabies Risk Reduction and Responding to Human Exposure.



## FORMULATION OF RABIES PREVENTION POLICIES IN ANIMAL FACILITIES

All facilities and people which handle animals including veterinary hospitals, animal shelters and humane societies, animal control officers, wildlife rehabilitators, animal damage control trappers and boarding kennels, should become familiar with rabies issues, and develop local or in-house protocols on how to handle rabies related situations using this Rabies Management Manual as a guide. Animal control officers, veterinary hospitals, animal shelters and humane societies are usually the first to become involved in a potential rabies situation. Establishing policies to deal with that first rabies suspect will allow the situation to be handled safely and professionally. Public education is the key to reducing the risk of rabies among domesticated animals and humans. Animal care facilities and animal control officers have the opportunity and the responsibility to see that accurate information is presented to the public. Staff should have the knowledge to respond quickly and appropriately in a rabies situation, either by giving the public direct information, or by referring them to the appropriate professionals for help.

The following points should help those who work with animals to formulate a rabies plan for their facility.

**Plan ahead:** It is very useful to make arrangements, before there is an emergency, with animal control officers, animal shelters and humane societies, veterinarians, town officials, police departments, sheriff's departments, game wardens, wildlife rehabilitators, animal damage control trappers and courier services, all of whom may become involved in reporting, catching, destroying, decapitating, transporting and/or sheltering animals. Local police departments are a vital group since they are often called on in emergency situations involving suspect rabid animals. It is critical that police officers and others not normally involved in handling animals, be instructed in the appropriate way to handle suspect animals, including when and where it is and is not suitable to shoot an animal. Familiarity with local game wardens and emergency response procedures is helpful. It is important to decide how your facility will handle situations involving animals other than dogs, cats, and ferrets. Wild animals are dealt with very differently in regards to rabies exposures than are dogs, cats and ferrets.

**Educate the staff:** Everyone, including animal control officers, all facility staff members, volunteers, and board members should become familiar with animal handling protocols and/or this Rabies Management Manual and the procedures it outlines. The staff should be able to deal calmly and effectively with the public to dispel fears and give accurate information.

**Post a contact list:** A contact list, like the one at the beginning of this manual, should be posted near each telephone with routine and emergency numbers of the local and state officials and agencies that are involved in handling rabies situations.

**Establish a human pre-exposure vaccination policy:** All animal control officers, animal shelter and humane society employees, veterinary hospital staff, wildlife

rehabilitators, and any other high risk personnel should seriously consider receiving pre-exposure vaccination. Each staff member should be informed of the availability of immunization, and should then talk to their health care provider to discuss the details of the procedure. Pre-exposure vaccination can be arranged through the health care provider or through an Adult Immunization Clinic if one is available in the area. Management of the animal facility may want to consider having staff members sign a statement attesting to the fact that pre-exposure vaccination has been discussed, with signed agreement or refusal.

**Establish a human post-exposure policy:** If a staff member is bitten by a suspect animal, the wounds must be flushed immediately and washed thoroughly with soap and water, and a health care provider must be contacted at once. The necessity for post-exposure rabies treatment or animal quarantine will be decided on a case by case basis by the attending physician and the DHS. Note that staff members at an animal facility cannot legally give any advice to another staff person or the public on treating human bite wounds or exposures to rabies; this must be left to a physician.

It is important to keep accurate records of all human and domesticated animal exposures which occur in your facility, or which are reported to your staff. Many animal facilities are using some type of rabies exposure log where incidents can be recorded for later follow-up.

**Establish a pet pre-exposure vaccination policy:** All rabies vaccinations for cats, dogs and ferrets must be administered by a veterinarian. This is state law and the only way to assure the public that the pet has been properly vaccinated. One month after an initial vaccination, a peak rabies antibody titer is reached and the pet can be considered to be currently immunized. Pets which are maintaining a proper reimmunization schedule may be considered to be currently immunized directly after a booster dose.

It is important to question the vaccination status of all animals, in order to advise on an immunization schedule, or to add rabies to the differential diagnosis if the animal is showing signs of illness.

Note that immunosuppressed or ill animals may not be able to mount an adequate immune response to vaccination. Veterinarians may want to vaccinate some animals more frequently and avoid giving corticosteroids concurrently with rabies vaccine.

**Establish a policy on pets exposed to rabies:** Veterinary hospitals should establish protocols for handling pets exposed to known or suspected rabid domesticated animals or wildlife. Again, keeping records of these exposures in a separate log is a good idea. Animal facilities and animal control officers face the problem of how to safely treat a pet with an abscess or bite wound, once rabies is in the area.

- a. **Be extremely cautious and wear gloves when handling animals with suspicious wounds.** The wounds of these animals may contain viable rabies virus from the saliva of the infected animal. Gloves should be worn when handling these animals, especially if it is within 2 hours of the incident. Owners handling such animals (especially if they have done so directly after the wounds were sustained) should wash at once and be referred to their health care provider.

- b. **Determine if an injured pet has bitten anyone.** If so, the local animal control officer must be notified. In most cases these pets will be quarantined for a period of 10 days.
- c. **The animal's owner must be advised** of their pet's potential exposure to rabies, and referred to their health care provider.
- d. **Long-term quarantine** (45 days - 6 months) is necessary for dogs, cats and ferrets which have been exposed to rabies. Individual animal facilities must decide whether they are willing to provide this kind of care for owners who can't confine pets at home. Protocol would be similar to that for quarantine of biting animals.

**Establish a policy for pets showing signs of rabies:** Proper handling of suspect animals is essential to insure the safety of the public and the person handling the animal. Dogs, cats and ferrets which bite humans must be quarantined for 10 days. Each facility will need to establish policies for handling quarantined animals. Animals, which show signs of rabies (behavioral changes or neurological signs), should be evaluated by a veterinarian for possible rabies testing.

**Establish a stray animal placement policy:** See section on "Municipalities Responsibilities to Animal Control." and "Animal Shelter Adoption Disclaimer" in the Appendix. Animal shelters and municipalities should work together to formulate a policy.

**Quarantine guidelines for animal facilities:**

1. Quarantine nothing unless you can be sure of safely and humanely confining the suspect animal. Escape must not be a possibility.
2. Ideally, quarantined animals should be kept in cages that are divided by guillotine-type doors, so one side may be cleaned while the animal is moved without handling to the other side. If this isn't possible, handling must be minimal and should be by one or two staff people (preferably who have had pre-exposure vaccination) using appropriate equipment (gloves, restraint poles, squeeze bars, etc.). Records should be kept of all staff persons who have contact with the animal.
3. Quarantined animals should not be accessible to the public. Cages should be clearly marked with rabies warnings in red, orange or neon. Cages should be kept locked.
4. Solid walls should separate quarantined animals from other animals. **Animals must not be able to touch other animals, and saliva must not be able to reach other cages or runs.**
5. Cages, dishes, and litter pans must be in good condition so they can be easily disinfected every day. Disinfection can be with alcohol (40-70% ethanol), freshly prepared bleach solution (1/2 cup per gallon water), iodine (25 ppm) or quaternary ammonium (200 ppm) compounds.
6. Quarantined animals should be observed carefully several times daily for signs of illness or behavior changes. If any changes occur, the animal should be immediately examined by a veterinarian to determine if euthanasia and rabies testing are necessary.

## **RABIES TESTING**

In the State of Maine, the only accepted confirmation of rabies in an animal is the Direct Fluorescent Antibody (DFA) of brain tissue. The test is a rapid, sensitive, and reproducible laboratory method for detecting rabies antigen in tissue. Fresh brain tissue is required. Do not fix in formalin.

The following guidelines will help in preparing and submitting specimens to the HETL in Augusta where the testing is done. It should be emphasized that when rabies testing is necessary, speed is very important, and a health professional should be consulted early in any potential rabies situation. The decision to submit an animal for rabies testing will ultimately be made by the attending physician (when a human is exposed) or veterinarian (when a domesticated animal is exposed), and by the professionals at the HETL.

**Criteria for testing:** The HETL will accept specimens for rabies testing which meet the following guidelines:

1. An animal under rabies suspicion which has exposed a human; or
2. An animal under rabies suspicion which has exposed a domesticated animal.
3. Surveillance testing must be approved prior to submission and limited to raccoons, skunks, foxes, and woodchucks from areas where wildlife rabies has not yet been found and is in close proximity to an epizootic area.

**Type of specimen to submit:**

1. The HETL does not accept live animals (bats are the only exception).
2. All animals except bats should be decapitated by veterinarians or trained personnel before being submitted to the HETL. The HETL does not have facilities to process carcasses and they will not be accepted or tested.

**Handling specimens safely:**

1. Specimens (bodies or heads) should always be handled with waterproof gloves.
2. Specimens must be stored and transported in a proper container so that fluid leakage is prevented.
3. Specimen containers must be clearly labeled "Rabies Suspect."
4. To clean surfaces and items contaminated by a rabies suspect, use a bleach solution (1/2 cup per gallon of water) as a disinfectant.

If a specimen cannot be sent to the HETL immediately, it should be refrigerated. It is important that the brain tissue does not degenerate. **A specimen must not be frozen.** However, if freezing has occurred, it should be kept frozen and submitted that way to the HETL. The HETL has a better chance of getting testable tissue if they thaw it there.

**To package a specimen properly:**

1. Place in a watertight container (well tied, heavy plastic bag or a plastic pail/metal can with tight fitting lid).

2. This container should be placed in a second, larger, waterproof container. If plastic bags are used for both layers, the specimen should then be boxed for more support, easier handling, and labeling.
3. Immediately before transport, the space between the two watertight containers should be packed with ice packs, or crushed ice if packs are not available. The ice or ice packs should not be directly in contact with the specimen to avoid freezing it.
4. A "Rabies Submission" form should be completely filled out and attached securely to the outside of the packaging. It is suggested that a copy of this form be kept for future reference by those submitting the specimen. (See sample form in the Appendix.)
5. If the animal exposed a human, the completed bite report should be submitted with animal.

**Delivery of specimens:** The HETL should always be called before delivering a specimen for testing. See the map for directions to the HETL in the Appendix section.

**Regular Hours:** Monday to Friday, 7:00 a.m. to 5:00 p.m., call 287-2727.

**After Hours:** Nights, Weekends and Holidays call 1-800-452-1999. When delivering after hours, use the phone just inside the front door of the building to call security for admittance (287-4154). The responsibility for transporting specimens related to human rabies exposure belongs with the owner of the animal (if known), with the town if the animal is a stray, with the Warden Service if it's wild, or with the family of the bitten person.

For situations where a domesticated animal has been exposed, the animal's owner is responsible for transporting the specimen for testing.

Professionals involved in the specific case, whether an animal control officer, animal shelter or veterinarian have a responsibility to help with coordinating transport.

If transportation to the HETL cannot be arranged through the parties involved, the Warden Service, the local or State Police, Greyhound Bus Lines, or a private transport service should be contacted (see page 43).

.....

PLEASE NOTE: Skunks and other animals which are saturated with skunk spray have been brought to the lab for rabies testing and the pungent odor has permeated the building when left overnight in the inside refrigerator. This has resulted in numerous complaints throughout the Department of Human Services building. To rectify this problem, an enclosed refrigerator has been placed outside the lab entrance door for storing after-hours skunk specimens. **The HETL still prefers that all skunks be decapitated and tightly secured in plastic bagging before being dropped off at the laboratory.**

## SPECIMEN PREPARATION (DECAPITATION) BY VETERINARIANS

When an animal must be rabies tested, decapitation must be performed by a veterinarian, trained personnel, or trained game warden so that the head alone can be submitted to the HETL. All personnel trained to decapitate receive the pre-exposure rabies vaccine.

There has never been a case of human rabies associated with an exposure received during decapitation; however, caution must be taken as the brain, spinal cord, salivary glands and saliva of the animal may contain rabies virus that could possibly cause rabies if splashed onto an open cut or mucous membrane.

It is therefore extremely important for the veterinarian as well as any assistants and observers to wear protective gear and exercise caution with the use of sharp objects used during the procedure. If exposure does occur during this process, it must be noted on the laboratory submission form for the animal. If the animal tests positive for rabies, a physician should be consulted as soon as possible concerning the need for rabies post-exposure treatment for the person involved.

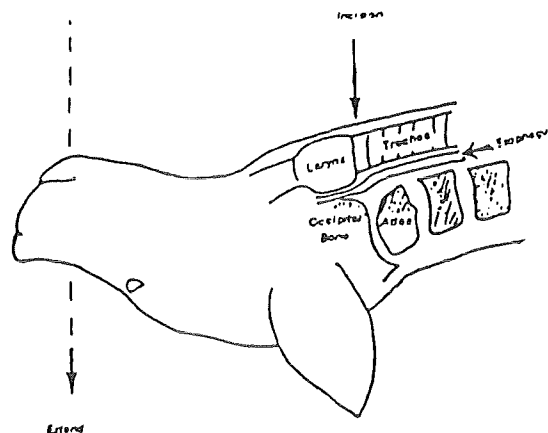
### Protective clothing and equipment:

1. heavyweight autopsy gloves;
2. full face shield;
3. protective covering for clothing: surgical gown, plastic apron, coveralls, etc.;
4. plastic sheet or body bag to protect surfaces and catch body fluids if procedure can't be performed in a tub.

It is recommended that decapitation be performed in a tub or other easily disinfected area, where body fluids and cleaning solutions can be safely drained away. When farm animals are decapitated, it may be wise to perform the procedure in or very close to the burial hole to minimize surface soil contamination with saliva and CSF fluid. Have a sturdy waterproof container ready to package the head.

**Suggested procedure:** Place the animal in dorsal recumbency and extend the head by pushing the mandible downward. Make a skin incision immediately caudal to the larynx, then section the trachea and other soft tissues down to the dura. Identify the atlanto-occipital joint by flexing the head, and incise the ligaments to open the joint.

Alternatively, forcefully extending the head backwards over a solid object will tear the ligaments, producing an audible and palpable snap. Sever the remaining muscle and skin to completely amputate the head from the body.



If cutting through the vertebra is preferred to arthrotomy, shears or a hacksaw can be used to bisect the atlas. DO NOT use an axe, hatchet, or power saw due to the danger created by flying bone and tissue, and the possibility of aerosolizing virus-contaminated fluids.

If decapitation of a large animal was performed outdoors, any soil or vegetation contaminated with body fluids should be buried with the animal.

**Carcass disposal:** Because the rabies virus is primarily concentrated in the brain and salivary glands, only the head submitted for testing is considered medical waste. The remaining carcass can be disposed of in the usual manner:

1. incineration (preferred);
  2. interment in a pet cemetery; or
  3. field burial in accordance with Department of Agriculture Carcass Disposal Rules. See "Recommended Handling Procedures for Animal Carcasses Which Are Potentially Rabid" in the Appendix section.
- The movement of large animal carcasses should be done with a minimum of human contact. Protective clothing is recommended.
  - Rendering of rabid or suspect rabid livestock is prohibited.
  - If carcasses must be stored prior to disposal, common sense would dictate that they be sealed in waterproof body bags.

# **TRANSPORTING SUSPECTED RABID ANIMALS TO THE HEALTH & ENVIRONMENTAL TESTING LABORATORY IN AUGUSTA**

## **BE PREPARED- SET UP YOUR TRANSPORTATION SYSTEM BEFORE IT BECOMES AN EMERGENCY**

The Department of Environmental Protection considers the transporting of suspected rabid animals as “**Clinical Specimens**,” not hazardous waste. Below are options in transporting the specimens to the Health & Environmental Health Laboratory (HEtL), 221 State Street in Augusta. This is not a complete list and some transporting companies listed do not service all areas in Maine.

For more information on decapitation, handling, and testing requirements, please refer to the “Rabies Testing” section. A map, telephone numbers, and hours of operation are also mentioned in the Rabies Testing section of this manual.

**The HEtL should always be called before delivering a specimen for testing.**

Regular hours: Monday through Friday, 7:00 a.m. - 5:00 p.m. call 287-2727. After hours: nights, weekends, and holidays call 1-800-452-1999. For delivering after hours, use the phone just inside the front door of the building to call security for admittance (287-4154).

### **OPTION 1:**

Animal control officer or someone designated by the animal control officer will transport the clinical specimen personally to the HEtL.

Undomesticated animals only: A game warden will arrange transport of the specimen to the HEtL.

### **OPTION 2:**

For rural areas: animal control officer or someone designated by the animal control officer will transport to an area where a delivery service will pick up clinical specimen.

### **OPTION 3:**

Call a delivery service for a guaranteed delivery time and date.

Greyhound: Check local yellow pages under “Bus Lines”

Maine Delivery Service: 1-800-540-7270, 784-7277, and 783-8379, Minot Avenue, Auburn, Maine 04210

Roadway Package System (RAPS): 1-800-762-3725, PO Box 108, Pittsburgh, PA 15230

General Courier: 1-800-698-5035, PO Box 1072, Portland, Maine 04104

Bits & Pieces Delivery & Courier Service: 1-800-234-5594, 226 Anderson Road, Portland, Maine, Augusta location: 623-9022

L A Xpress: 1-800-287-2343, Auburn, Lewiston location: 784-1997

Maine Xpress Couriers: 1-800-439-2841, 11 Liberty Drive, Bangor Maine

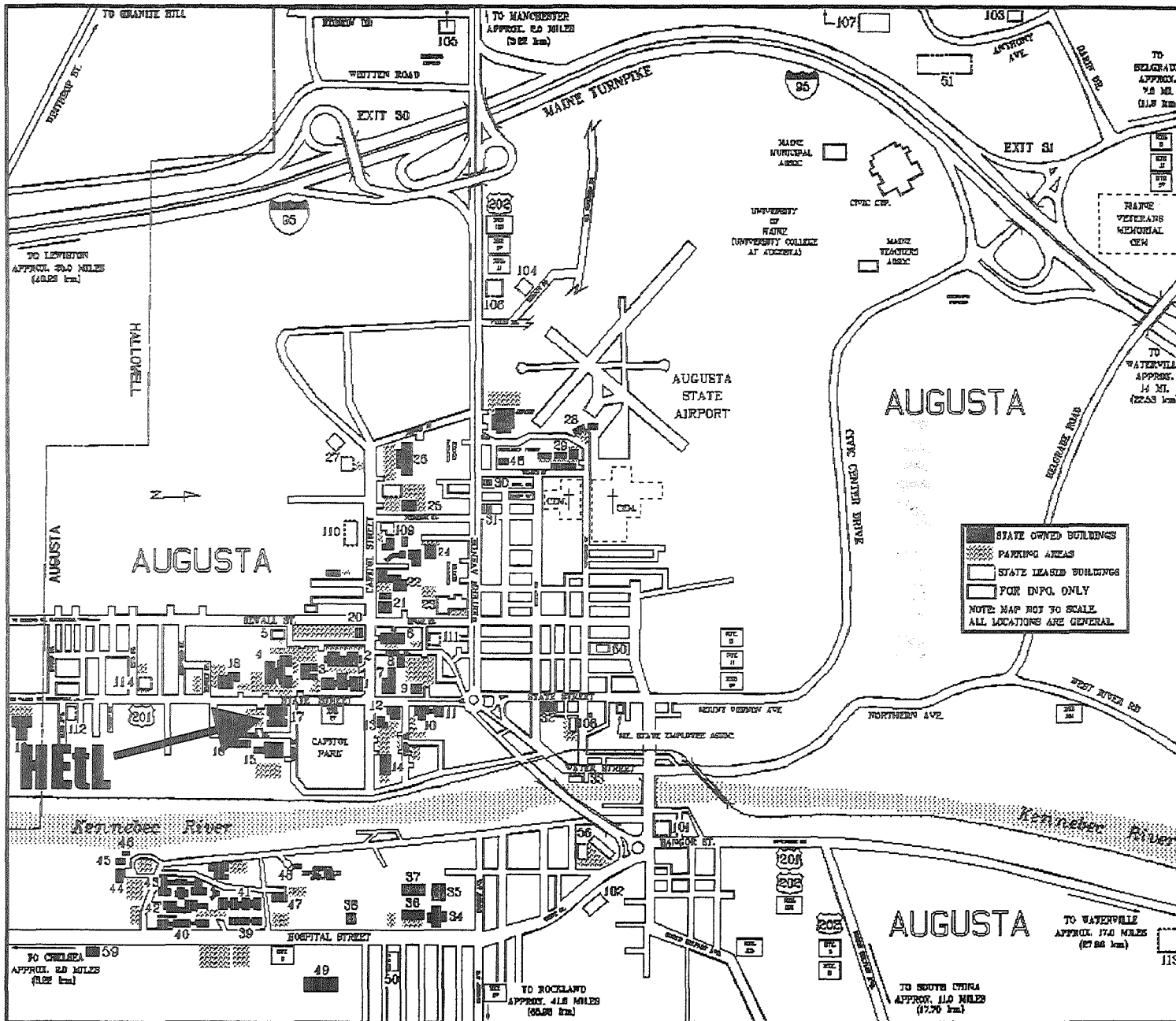
Delivery services that **WILL NOT** transport clinical specimens:

Fed Ex, UPS-United Parcel Service, Express Mail-U.S. Postal Service





# **APPENDIX**



Directions to HETL:  
 On I-95 take exit 30, bear right off exit toward Augusta. Follow Western Ave. to rotary. Take first major road to right off rotary. At second set of lights, take left. HETL is on right, entrance faces Capitol Park.



**RABIES SUBMISSION FORM**

**Health and Environmental Testing Lab.**

221 State Street

Augusta, Maine 04333

Telephone 207-287-2727 After hours 1-800-452-1999 Fax 207-287-6892

Lab # \_\_\_\_\_

Date \_\_\_\_\_

Time rec'd \_\_\_\_\_

Entered by \_\_\_\_\_

**SEND REPORT TO:** \_\_\_\_\_ Tel# \_\_\_\_\_

Street Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip code \_\_\_\_\_

**ANIMAL TESTED** \_\_\_\_\_ Wild [ ] Pet [ ] Stray [ ]

Was the animal vaccinated? Yes [ ] No [ ] Unknown [ ] Date of vaccination \_\_\_\_\_

If PET-Owners Name: \_\_\_\_\_ Tel# \_\_\_\_\_

Date of Contact \_\_\_\_\_ Date Animal Died \_\_\_\_\_ Euthanized [ ] Died [ ] Unknown [ ]

**HUMAN EXPOSURE:** (please use reverse side of form if more than one person was exposed)

Person exposed: Last Name \_\_\_\_\_ First Name \_\_\_\_\_ Sex \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_ Tel # \_\_\_\_\_

Was this person BITTEN [ ] SCRATCHED [ ] HANDLING [ ] Other \_\_\_\_\_

Physician: \_\_\_\_\_ Telephone # \_\_\_\_\_

Street Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip code \_\_\_\_\_

**DOMESTIC ANIMAL EXPOSURE:**

Animal exposed: \_\_\_\_\_ Vaccination date: \_\_\_\_\_

Was the animal BITTEN Yes [ ] No [ ] if no, describe the exposure \_\_\_\_\_

Owners Name \_\_\_\_\_ Telephone # \_\_\_\_\_

Exposure took place: Town \_\_\_\_\_ COUNTY \_\_\_\_\_

Describe circumstance of exposure: \_\_\_\_\_

Send/Call additional reports to (write name, address, and telephone # on reverse side) YES [ ] NO [ ]

**FOR HEtL USE ONLY:**

RESULTS: FA \_\_\_\_\_ Reported By \_\_\_\_\_ Date \_\_\_\_\_

Results called to: \_\_\_\_\_ Date \_\_\_\_\_ Tech \_\_\_\_\_ Time \_\_\_\_\_

## HOME QUARANTINE NOTICE

You are hereby required to confine your animal for [10 days] [45 days] [6 months] from the date of this notice in compliance with State rules governing rabies management. Pending the animal control officer's or person acting in that capacity's investigation, this quarantine period could be increased upon further findings. The animal must be kept separate from humans and other animals to observe for signs of rabies and to prevent humans or animals from being exposed.

You must report to the animal control officer (ACO) immediately in case the animal shows signs of illness or behavior changes during the quarantine period. The animal may not run at large nor be left outside unsupervised. The animal shall not be taken from the quarantine area except to be transported to a veterinarian for examination or euthanasia and must be under the direct supervision of a responsible adult, on a leash or tether, no longer than six feet. You may not sell, give away, euthanize or otherwise dispose of the animal during the quarantine period. Escaping from quarantine is regarded as a violation of this order, and must be reported to the ACO immediately. If the animal dies during the quarantine period, the ACO must be notified immediately and the animal tested for rabies.

The ACO must be permitted to make periodic observation or examination of the animal at the place of quarantine during the quarantine period. The animal must be examined by a veterinarian at the end of the quarantine period. Failure to heed this notice and abide by the restrictions herein given will subject the animal to seizure by the ACO for quarantine at owner's expense at a state licensed boarding kennel or veterinary hospital and will subject the owner to any penalties prescribed by State Law.

### **Owner Identification or If Stray – Animal Shelter Identification**

Name: \_\_\_\_\_

Address: \_\_\_\_\_ Telephone: (H): \_\_\_\_\_

(W): \_\_\_\_\_

Animal Quarantined At: \_\_\_\_\_

I have received the quarantine notice and will comply with quarantine.

Date: \_\_\_\_\_ Owner/Keeper's signature: \_\_\_\_\_

### **Animal Identification**

Type of Animal: \_\_\_\_\_ M/F: \_\_\_\_\_ Breed: \_\_\_\_\_

Description: \_\_\_\_\_

Date of current rabies vaccination: \_\_\_\_\_ Veterinarian: \_\_\_\_\_

### **Animal Control Officer**

Animal Observe Dates: \_\_\_\_\_

Signature: \_\_\_\_\_

**ANIMAL BITE REPORT**  
(to be filed with municipality records)

Date: \_\_\_\_\_ Case # \_\_\_\_\_

**VICTIM IDENTIFICATION (if human contact)**

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ M [ ] F [ ]

Address: \_\_\_\_\_ Telephone (H) \_\_\_\_\_ (W) \_\_\_\_\_

If minor,  
parent/guardian: \_\_\_\_\_ Relationship: \_\_\_\_\_

Address, if different: \_\_\_\_\_ Telephone (H) \_\_\_\_\_ (W) \_\_\_\_\_

Did victim have rabies prevention immunizations prior to this incident? Yes [ ] No [ ] Unknown [ ]

**DOMESTIC ANIMAL IDENTIFICATION (IF ANIMAL CONTACT)**

Type of Animal: \_\_\_\_\_ Owned [ ] Stray [ ] Wild [ ]

Description: \_\_\_\_\_ M [ ] F [ ] Age: \_\_\_\_\_

If owned – owner/keeper: \_\_\_\_\_ Telephone (H) \_\_\_\_\_ (W) \_\_\_\_\_

Address: \_\_\_\_\_

Date of current rabies vaccination: \_\_\_\_\_ Veterinarian: \_\_\_\_\_ Telephone \_\_\_\_\_

License #: \_\_\_\_\_ State: \_\_\_\_\_ Clinic: \_\_\_\_\_ Tag #: \_\_\_\_\_ Expiration date: \_\_\_\_\_

**SUSPECT ANIMAL**

Type of Animal \_\_\_\_\_ Owned (If Applicable) ( ) STRAY ( ) WILD ( )

DESCRIPTION \_\_\_\_\_ M ( ) F ( ) AGE (IF KNOWN) \_\_\_\_\_

If owned – owner/keeper \_\_\_\_\_ Telephone: \_\_\_\_\_

Address \_\_\_\_\_

Date of current rabies vaccination \_\_\_\_\_ Veterinarian \_\_\_\_\_ Tel. \_\_\_\_\_

License # \_\_\_\_\_ State \_\_\_\_\_ Clinic \_\_\_\_\_ TAG # \_\_\_\_\_ EXP. \_\_\_\_\_  
(RABIES) (DATE)

**DESCRIPTION OF INCIDENT**

Date reported: \_\_\_\_\_ Reported by: \_\_\_\_\_

Date of Bite: \_\_\_\_\_ Type of contact: Bite [ ] Scratch [ ] Other (specify): \_\_\_\_\_

Body part(s) bitten/scratched: \_\_\_\_\_ Medical care required? Yes [ ] No [ ]

Hospital: \_\_\_\_\_ Doctor: \_\_\_\_\_

Was rabies exposure prophylaxis given to victim? Yes [ ] No [ ] Unknown [ ]  
Date of first prophylaxis immunization: \_\_\_\_\_ second immunization: \_\_\_\_\_

Where did incident take place? \_\_\_\_\_ Provoked? Yes [ ] No [ ]

Description of incident: \_\_\_\_\_

### DISPOSITION OF VICTIM ANIMAL

In owner's possession: [ ] Euthanized and sent to HEtL for testing: [ ] Unknown (not captured) [ ]

Veterinary Hospital: [ ] Animal Shelter: [ ] Boarding Kennel: [ ] Other (specify): \_\_\_\_\_

Name of facility & location: \_\_\_\_\_

\_\_\_\_\_ Telephone: \_\_\_\_\_

Date of Quarantine: \_\_\_\_\_ Date of release: \_\_\_\_\_ Veterinary checked? Yes [ ] No [ ]

### DISPOSITION OF SUSPECT ANIMAL

In owners possession: ( ) Euthanized and sent to HEtL for testing: ( ) Unknown : ( ) Not captured: ( )

Veterinary hospital: ( ) Animal shelter: ( ) Boarding kennel: ( )

Other (specify): \_\_\_\_\_

Name of facility & location: \_\_\_\_\_

Date of quarantine: \_\_\_\_\_ Date of release: \_\_\_\_\_ Vet. checked? Y ( ) N ( )

### INVESTIGATING OFFICER

Name  
(print): \_\_\_\_\_ Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Employer: \_\_\_\_\_

Address: \_\_\_\_\_

Enforcement: Rabies Advisory Notice [ ] Quarantine Notice [ ] Civil/Criminal Summons [ ]

Other: \_\_\_\_\_

Has animal been ill, acted strangely, or bitten anyone recently? Yes [ ] No [ ] If yes,  
explain: \_\_\_\_\_

**Animal Shelter Adoption Disclaimer:**  
**YOUR NEW PET AND RABIES**

A dog, cat or other animal which has been bitten by or exposed to a rabid animal may not develop symptoms of rabies for up to six months. During this time (the incubation period), the exposed animal may appear to be totally healthy. Since the vaccination history of stray and abandoned animals is usually unknown, many of these animals have not had prior protection for rabies. Although all dogs and cats have been carefully screened for signs of exposure to rabid animals prior to adoption, the possibility still exists that your adopted pet could develop rabies. Therefore, it is very important for you to know that these symptoms in your pet could be rabies: change in behavior, vicious or nervous activity, difficulty swallowing, excessive drooling, difficulty walking or paralysis. If your adopted pet develops any of these symptoms, immediately separate it from humans and other animals and have it examined by a veterinarian.

Newly adopted pets should be examined by a veterinarian and vaccinated if they have not been. However, a rabies vaccination will not protect the animal from previous bites or other prior exposures to rabies.

\*\*\*\*\*

I have read this statement and will not hold the \_\_\_\_\_  
\_\_\_\_\_ Shelter responsible should my adopted  
pet develop rabies .

Signed: \_\_\_\_\_

Date: \_\_\_\_\_



## **RECOMMENDED HANDLING PROCEDURES FOR ANIMAL CARCASSES WHICH ARE POTENTIALLY RABID**

The primary concern when handling animal carcasses which may be rabid, is the transmission of the disease to you or someone else. It is therefore of the utmost importance to use caution and common sense when handling and disposing of potentially rabid animal carcasses. The following steps are recommended when handling any animal carcass that has the potential to be rabid.

1. Whenever possible, use a shovel to pick up the carcass. If you must use your hands, use barrier protection such as heavy-duty rubber gloves. If at all possible, avoid touching any wet area on the carcass. However, if the gloves or shovel become wet with bodily fluids, allow them to dry before touching with bare hands. If there is any rabies virus still alive in the animal carcass, the virus will die when it dries.

2. If the gloves or shovel need to be disinfected immediately, use a bleach or bleach and water solution. Remember however, that once bleach is mixed with water, it begins to disintegrate and after 24 hours is no longer considered to be a proper disinfectant.

## **DISPOSAL OF ANIMAL CARCASSES**

Animal carcasses that pose a physical, health or safety hazard should be removed and disposed in an appropriate manner. Carcasses which may be associated with rabies, distemper, or other potentially contagious diseases should receive special consideration to avoid unreasonable contamination or exposure to humans or pets. Animal carcasses should never be disposed of in trash cans or dumpsters. Incineration, burial or appropriate surface disposal may be employed as outlined below.

### **SINGLE ANIMAL BURIAL:**

Disposal of single, small animal carcasses should be based upon location of the carcass.

1. In areas where the carcass is likely to be encountered by humans or their pets, it should be disposed of by incineration or burial. There are no setback or soil condition requirements for small, single animal burials, but you should avoid wet areas, shallow to bedrock areas or areas very close to water bodies for the burial site. Carcasses should be placed in an excavation, no more than two feet deep, and covered by at least 18 inches of soil to prevent the carcasses from being dug up by another animal.
2. For remote areas, where human or pet contact is unlikely and the rabies threat is minimal, placing the carcass in the woods is an acceptable option. Cautious

professional judgement should be exercised when determining whether or not placement is an acceptable disposal method.

3. When a potentially rabid animal carcass is to be placed in a bag so that it can be transported, use a heavy duty plastic bag such as a bio-hazard bag. If disposal is to be by burial, do not bury the bag along with the carcass. It will not decompose or allow the carcass to decompose. After the carcass has been properly disposed of, carefully place the contaminated bag inside another, clean, plastic bag. Tie the outside bag tightly and then dispose of it in a proper manner (dumpster, trash can etc.). Be careful not to dispose of the bags in a place likely to be searched by persons for returnable bottles or where children frequently play.

MAINE DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES  
STATE HOUSE STATION #28  
AUGUSTA, MAINE 04333

---

PROCEDURE FOR BURIAL OF UP TO 500 LBS. PER YEAR OF CARCASSES IN ACCORDANCE  
WITH MDAFRR RULES AND POLICY  
EFFECTIVE DATE: SEPTEMBER 16, 1996

1. Select a site which is in an upland position, without a large watershed and which typically does not have a high seasonal water table.
2. Excavate a trench which is three feet or less wide and 18 inches deep. The bottom of the trench must be at least 24 inches above bedrock. Trenches must follow the contour so that the bottom of the trench is level.
3. Carcasses must be placed in the trench to a thickness of no more than 12 inches, limed, and covered with a minimum of 18 inches of fill. The fill surface should be loamed and seeded.
4. Additional trenches may be used if separated by a minimum of three feet, edge of trench to edge of trench.
5. Burial sites must meet the following minimum setback distances, unless a variance is granted by the department:

| <u>FEATURE</u>                       | <u>SETBACK DISTANCE</u> |
|--------------------------------------|-------------------------|
| Perennial (year round) Waterbodies   | 150'                    |
| Intermittent (seasonal) Waterbodies  | 75'                     |
| Public Water System                  | 300'                    |
| Private Wells (not owners)           | 300'                    |
| Private Wells (owners)               | 100'                    |
| Roads                                | 50'                     |
| Buildings (not owners)               |                         |
| *Residences                          | 100'                    |
| *Non Residences                      | 50'                     |
| Buildings (owner)                    | 20'                     |
| Property Lines                       | 50'                     |
| Significant Sand and Gravel Aquifers | Not Within              |
| 10 Year Flood Plain                  | Not Within              |
| Slopes                               | 15% or less             |

If you should have any questions, please contact the Maine Department of Agriculture, Food and Rural Resources, Office of Agricultural, Natural and Rural Resources, State House Station #28, Augusta, Maine 04333. Phone: (207) 287-1132.

LARGE VOLUME BURIAL SITES:

Large numbers of carcasses (more than 500 lbs. per year) should be disposed of in accordance with Chapter 211 – Rules for the Disposal of Animal Carcasses, administered by the Maine Department of Agriculture, Food and Rural Resources, when a single burial site is to be used. These Rules also outline appropriate incineration procedures and other disposal methods.

# **ATTENTION WOLF HYBRID OWNERS**

**If your wolf hybrid (“wolf-mix breed”) bites a person or domesticated animal, it will be euthanized at your expense and tested at the Health and Environmental Testing Laboratories for rabies as soon as possible.**

**There is no rabies vaccine approved for use in a wolf hybrid dog. Although your veterinarian may vaccinate your hybrid, it is unknown whether or not the vaccine provides any protection. Unlike with dogs, cats and ferrets, there is no known quarantine period for a wolf hybrid for purposes of observation of the animal for signs of rabies infection.**

**Examination of brain tissue is the only acceptable means of testing for the presence of rabies virus in a wolf-dog hybrid.**

**Maine Department of Human Services**



## Compendium of Animal Rabies Control, 1998

### Part II: Rabies Vaccines Licensed in US and NASPHV Recommendations, 1998

| Product Name                | Produced By                  | Marketed By            | For Use In | Dosage | Age at Primary Vaccination <sup>1</sup> | Booster Recommended | Route of Inoculation  |
|-----------------------------|------------------------------|------------------------|------------|--------|---|---------------------|-----------------------|
| <b>A) INACTIVATED</b>       |                              |                        |            |        |   |                     |                       |
| TRIMUNE                     | Fort Dodge License No. 112   | Fort Dodge             | Dogs       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM <sup>2</sup>       |
|                             |                              |                        | Cats       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
| ANNUMUNE                    | Fort Dodge License No. 112   | Fort Dodge             | Dogs       | 1 ml   | 3 months                                | Annually            | IM                    |
|                             |                              |                        | Cats       | 1 ml   | 3 months                                | Annually            | IM                    |
| DURA-RAB 1                  | ImmunoMed License No. 421    | ImmunoMed, Vedco, Inc. | Dogs       | 1 ml   | 3 months                                | Annually            | IM                    |
|                             |                              |                        | Cats       | 1 ml   | 3 months                                | Annually            | IM                    |
| DURA-RAB 3                  | ImmunoMed License No. 421    | ImmunoMed, Vedco, Inc. | Dogs       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
|                             |                              |                        | Cats       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
| RABCINE-3                   | ImmunoMed License No. 421    | Pfizer, Inc.           | Dogs       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
|                             |                              |                        | Cats       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
| CHAMPION PROTECTOR RABIES 3 | ImmunoMed License No. 421    | AgriLaboratories       | Dogs       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
|                             |                              |                        | Cats       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
| ENDURALL-P                  | Pfizer, Inc. License No. 189 | Pfizer, Inc.           | Dogs       | 1 ml   | 3 months                                | Annually            | IM or SC <sup>3</sup> |
|                             |                              |                        | Cats       | 1 ml   | 3 months                                | Annually            | SC                    |
| RABGUARD-TC                 | Pfizer, Inc. License No. 189 | Pfizer, Inc.           | Dogs       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
|                             |                              |                        | Cats       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM                    |
|                             |                              |                        | Sheep      | 1 ml   | 3 months                                | Annually            | IM                    |
|                             |                              |                        | Cattle     | 1 ml   | 3 months                                | Annually            | IM                    |
| DEFENSOR                    | Pfizer, Inc. License No. 189 | Pfizer, Inc.           | Dogs       | 1 ml   | 3 months & 1 year later                 | Triennially         | IM or SC              |
|                             |                              |                        | Cats       | 1 ml   | 3 months & 1 year later                 | Triennially         | SC                    |
|                             |                              |                        | Sheep      | 2 ml   | 3 months                                | Annually            | IM                    |
|                             |                              |                        | Cattle     | 2 ml   | 3 months                                | Annually            | IM                    |

Compendium of Animal Rabies Control - Vaccine...

|  |  |                  |  |  |  |   |  |
|--|--|------------------|--|--|--|---|--|
| RABDOMUN                                   | Pfizer, Inc.<br>License No.<br>189                   | Schering-Plough  | Dogs<br>Cats<br>Sheep<br>Cattle                      | 1 ml<br>1 ml<br>2 ml<br>2 ml                 | 3 months &<br>1 year later<br>3 months &<br>1 year later<br>3 months<br>3 months   | Triennially<br>Triennially<br>Annually<br>Annually                            | IM or SC<br>SC<br>IM<br>IM                                     |
| RABDOMUN 1                                 | Pfizer, Inc.<br>License No.<br>189                   | Schering-Plough  | Dogs<br>Cats   | 1 ml<br>1 ml                                 | 3 months<br>3 months   | Annually<br>Annually  | IM or SC<br>SC   |
| SENTRYRAB-1                                | Pfizer, Inc.<br>License No.<br>189                   | Synbiotics Corp. | Dogs<br>Cats   | 1 ml<br>1 ml                                 | 3 months<br>3 months   | Annually<br>Annually  | IM<br>IM   |
| RABVAC 1                                   | Fort Dodge<br>Animal<br>Health<br>License No.<br>112 | Fort Dodge       | Dogs<br>Cats   | 1 ml<br>1 ml                                 | 3 months<br>3 months   | Annually<br>Annually  | IM or SC<br>IM or SC   |
| RABVAC 3                                   | Fort Dodge<br>Animal<br>Health<br>License No.<br>112 | Fort Dodge       | Dogs<br>Cats<br>Horses                               | 1 ml<br>1 ml<br>2 ml                         | 3 months &<br>1 year later<br>3 months &<br>1 year later<br>3 months   | Triennially<br>Triennially<br>Annually  | IM or SC<br>IM or SC<br>IM                                     |
| PRORAB-1                                   | Intervet, Inc.<br>License No.<br>286                 | Intervet, Inc.   | Dogs<br>Cats<br>Sheep                                | 1 ml<br>1 ml<br>2 ml                         | 3 months<br>3 months<br>3 months   | Annually<br>Annually<br>Annually  | IM or SC<br>IM or SC<br>IM                                     |
| PRORAB-3F                                  | Intervet, Inc.<br>License No.<br>286                 | Intervet, Inc.   | Cats   | 1 ml   | 3 months &<br>1 year later   | Triennially   | IM or SC   |
| RM IMRAB 3                                 | Rhone<br>Merieux,<br>Inc.<br>License No.<br>298      | Merial, Inc.     | Dogs<br>Cats<br>Sheep<br>Cattle<br>Horses<br>Ferrets | 1 ml<br>1 ml<br>2 ml<br>2 ml<br>2 ml<br>1 ml | 3 months &<br>1 year later<br>3 months &<br>1 year later<br>3 months &<br>1 year later<br>3 months<br>3 months<br>3 months | Triennially<br>Triennially<br>Triennially<br>Annually<br>Annually<br>Annually | IM or SC<br>IM or SC<br>IM or SC<br>IM or SC<br>IM or SC<br>SC |
| RM IMRAB 1<br>BOVINE PLUS                  | Rhone<br>Merieux,<br>Inc.<br>License No.<br>298      | Merial, Inc.     | Cattle<br>Horses<br>Sheep                            | 2 ml<br>2 ml<br>2 ml                         | 3 months<br>3 months<br>3 months &<br>1 year later   | Annually<br>Annually<br>Triennially   | IM or SC<br>IM or SC<br>IM or SC                               |
| RM IMRAB 1                                 | Rhone<br>Merieux,<br>Inc.<br>License No.<br>298      | Merial, Inc.     | Dogs<br>Cats   | 1 ml<br>1 ml                                 | 3 months<br>3 months   | Annually<br>Annually  | IM or SC<br>IM or SC   |
| <b>B) COMBINATION (inactivated rabies)</b> |  |                  |  |  |  |   |  |
| ECLIPSE 3+<br>FeLV/R                       | Fort Dodge<br>Animal<br>Health<br>License No.<br>112 | Schering-Plough  | Cats   | 1 ml   | 3 months   | Annually  | IM or SC <sup>3</sup>  |
| ECLIPSE 4+<br>FeLV/R                       | Fort Dodge<br>Animal<br>Health                       | Schering-Plough  | Cats   | 1 ml   | 3 months   | Annually  | IM or SC   |

Compendium of Animal Rabies Control - Vaccine...

|   |  |              |          |      |                         |                  |                 |
|---|--|--------------|----------|------|-------------------------|------------------|-----------------|
|   | License No. 112                          |              |          |      |                         |                  |                 |
| Fel-O-Guart 3+  | Fort Dodge Animal Health License No. 112 | Fort Dodge   | Cats     | 1 ml | 3 months                | Annually         | IM or SC        |
| Fel-O-Guart 4+  | Fort Dodge Animal Health License No. 112 | Fort Dodge   | Cats     | 1 ml | 3 months                | Annually         | IM or SC        |
| FEL-O-VAX PCT-R   | Fort Dodge License No. 112               | Fort Dodge   | Cats     | 1 ml | 3 months & 1 year later | Triennially      | IM              |
| RM FELINE 4+ IMRAB  | Rhone Merieux, Inc. License No. 298      | Merial, Inc. | Cats     | 1 ml | 3 months & 1 year later | Triennially      | SC              |
| RM FELINE 3+ IMRAB  | Rhone Merieux, Inc. License No. 298      | Merial, Inc. | Cats     | 1 ml | 3 months & 1 year later | Triennially      | SC              |
| RM EQUINE POTOMAVAC+ IMRAB  | Rhone Merieux, Inc. License No. 298      | Merial, Inc. | Horses   | 1 ml | 3 months                | Annually         | IM              |
| MYSTIQUE II   | Bayer Corp. License No. 52               | Bayer Corp.  | Horses   | 1 ml | 3 months                | Annually         | IM              |
| <b>C) ORAL (rabies glycoprotein, live vaccinia vector)-RESTRICTED TO USE IN STATE AND FEDERAL RABIES CONTROL PROGRAMS</b> |  |              |          |      |                         |                  |                 |
| Raboral   | Rhone Merieux, Inc. Licence No. 298      | Merial, Inc. | Raccoons | N/A  | N/A                     | To be determined | PO <sup>4</sup> |

<sup>1</sup>Three months of age (or older) and revaccinated one year later

<sup>2</sup>Intramuscularly

<sup>3</sup>Subcutaneously

<sup>4</sup>Per os

# PART II

## STATUTES AND RULES RELATING TO RABIES CONTROL





10: Department of Human Services  
144A: Bureau of Health, Division of Disease Control  
Chapter 251: Rules Governing Rabies Management

1. **Authorization.**

The Statutory Authority for Rules Governing Rabies Management is 22 MRSA Section 1313 and 22 MRSA Section 1313-A, 1313-B

2. **Definitions.**

**A. Animal Control:** Control of dogs, cats, and domesticated or undomesticated animals in accordance with 7 MRSA Section 3948.

**B. Animal Control Officer (ACO):** An Animal Control Officer or person acting in that capacity that is appointed periodically by municipal officers pursuant to 7 MRSA Chapter 725.

**C. Animal Damage Control Cooperator (ADC):** Also referred to as an ADC agent, a cooperating trapper or hunter certified by the Department of Inland Fisheries & Wildlife and operating as an agent of the Department for purposes of animal damage control.

**D. Confirmed Rabid Animal:** An animal that has been confirmed rabid by the Health & Environmental Testing Laboratory using the direct fluorescent antibody (DFA) test of nervous tissue.

**E. Control:** To limit by reasonable means all unnecessary exposure of the suspected rabid animal to humans or to other animals.

**F. Currently Vaccinated:** Domesticated animals are considered currently vaccinated for rabies if at least 30 days has elapsed since the initial vaccination and the duration of vaccination has not exceeded the time period recommended for that species based upon the type of vaccine used. A Maine "Certificate of Rabies Vaccination" or a form approved by the Commissioner of the Department of Agriculture, Animal Health and Industry is proof of immunization.

**G. Decapitate:** To remove the head using methods recommended by the Department of Human Services. In the context of rabies control, decapitation is to be performed by a veterinarian or, in the case of an undomesticated animal, a veterinarian, game warden, animal damage control agent (ADC), or other trained person as per Inland Fisheries & Wildlife internal memorandum.

**H. Domesticated Animal:** domesticated animals would include but are not limited to: dogs, cats, ferrets, wildlife hybrids, or livestock.

**I. Domesticated Ferret:** *Mustela putorius Furo*, member of the weasel family. Bred by private and commercial breeders and has been domesticated since 600 AD. Domesticated ferret does not include the blackfooted ferret.

**J. Enzootic:** A low but consistent appearance of rabies in a defined area.

**K. Epizootic:** The occurrence of rabies in animals clearly in excess of expected or enzootic levels.

**L. Exposure:** Rabies can only be transmitted when the saliva or neural tissue of an infected animal is introduced into open cuts or wounds in person's or animal's skin or contacts the mucous membranes (e.g. mouth, nose, eyes). The two categories of exposure are:

- (1) **Bite:** Any penetration of the skin by an animal's teeth. Bites, in general, are high risk exposures. Bites to the face and hands carry the highest risk.
- (2) **Nonbite exposure:** Scratches, abrasions, open wounds or mucous membranes contaminated with saliva or neural tissue from a rabid animal constitute nonbite exposures. If the material containing the virus is dry, the virus can be considered noninfectious.

**M. Quarantine Facility:** An area where a domesticated animal is placed so as to have no other animal contact and preferably no direct human contact or very limited human contact.

**N. Livestock:** Horses, cows, sheep, goats, swine, domesticated deer or any other agricultural mammal.

**O. Non-exposure:** Other contact by itself, such as being in the vicinity of petting or handling an animal, or coming into contact with the blood, urine, or feces of an animal, does not constitute exposure, and therefore does not require post-exposure vaccination.

**P. Observation:** Term used to describe the period of time (45 days) that a vaccinated, domesticated animal is to be observed for signs of rabies after having been exposed to a rabid or suspect rabid animal.

**Q. Owned Animal:** Domesticated animals, as well as animals in petting zoos and circuses that have a known owner.

**R. Quarantine:** Term used to describe the period of time that a domesticated animal is to remain separate and apart from other animals and humans after having bitten or otherwise exposed another domesticated animal, human, or has itself been exposed to a known or suspected rabid animal.

**S. Rabies Management Manual:** A manual written by Maine's Rabies Work Group to provide information on rabies as a disease, outline prevention, and treatment of rabies exposure in humans, domesticated animals, and wildlife and to help municipalities and animal care facilities develop their own rabies response plans.

**T. Stray Animal:** Domesticated animals that have no known owner.

**U. Suspected Rabid Animal:**

- (1) Any mammal, undomesticated or domesticated, showing signs of rabies.
- (2) Any undomesticated mammal which has potentially exposed, through bite or non-bite exposure, a human or domesticated animal to rabies.
- (3) Any domesticated mammal which has bitten a human or domesticated animal.

**V. Undomesticated Animal:** A mammal considered to be wild by nature by the Department of Inland Fisheries & Wildlife.

**W. Unvaccinated Animal:** An animal with no previous rabies vaccination, an animal whose first vaccination was given within the last 30 days, an animal whose last vaccination has expired (per vaccine manufacturer's recommendations), or an animal for which no approved vaccine exists.

**X. Wolf Hybrid:** "Wolf Hybrid" means a mammal that is the offspring of the reproduction between a species of wild canid or wild canid hybrid and a domestic dog or wild canid hybrid. "Wolf hybrid" includes a mammal that is represented by its owner to be a wolf hybrid, coyote hybrid, coy dog or any other kind of wild canid hybrid.

**3. Responding to suspected rabid animal complaints:**

An ACO must respond to a report of a stray domesticated or undomesticated animal suspected of having rabies. The ACO may respond to a report of an owned domesticated animal suspected of having rabies when the municipality regards the animal as a threat to public health.

**4. Control, capture, and transportation of suspected rabid animals.**

A. Stray domesticated animals:

- (1) Suspected rabid animals that are strays must be controlled or captured by the ACO.
- (2) ACO must coordinate with and transport sick stray animals directly to a veterinarian or, if a veterinarian is unavailable, to an animal shelter where it shall be placed under quarantine until a veterinarian can examine the suspected rabid animal.
- (3) A law enforcement officer or ACO qualified to shoot may shoot or otherwise humanely euthanize a suspected rabid animal if harm to humans or other animals is imminent. The animal must not be shot in the head, nor must the head be destroyed or disposed of, but instead must be submitted for testing if there is any chance that there was contact between the suspect animal and humans or domesticated animals.
- (4) If testing of the suspected rabid animal is necessary, the ACO must arrange for decapitation of stray animals and assure transportation of the suspected rabid animal to the Health & Environmental Testing Laboratory. The carcass must be disposed of properly as per the "Animal Carcass Disposal" recommendations contained in the Appendix.

**B. Owned domesticated animals:**

- (1) Control and capture of owned domesticated animals is the responsibility of the owner or keeper.
- (2) The owner must coordinate with and transport sick animals directly to a veterinarian.
- (3) The municipality must be contacted by the owner.
- (4) The municipality may capture and control owned domesticated animals if the municipality regards the animal as a threat to public health.
- (5) A law enforcement officer or ACO qualified to shoot may shoot or otherwise humanely euthanize a suspect rabid animal if harm to humans or other animals is imminent. The animal must not be shot in the head, nor must the head be destroyed or disposed of but, instead, must be submitted for testing.
- (6) If testing of the suspect rabid animal is necessary, the owner or keeper must arrange for decapitation of animals and assure transportation of the suspected rabid animal to the Health & Environmental Testing Laboratory. The carcass must be disposed of properly as per the Rabies Management Manual, Rabies Testing -Specimen Preparation Section. An ACO may assist in coordination if the municipality regards the animal as a threat to public health.

**C. Undomesticated animals:**

- (1) Suspected rabid animals must be controlled or captured by the ACO or ADC agent. The game warden should be contacted prior to responding.
- (2) If human or domesticated animal exposure has occurred, the undomesticated animal should be shot or otherwise humanly euthanized by a law enforcement officer, game warden, ADC agent or qualified ACO. The animal must not be shot in the head, nor must the head be destroyed or disposed of but, instead, must be submitted for testing.
- (3) A game warden may arrange for decapitation and assure transportation of the suspected rabid animal. The carcass must be disposed of properly as per the “Animal Carcass Disposal” recommendations in the Appendix.

**5. Domesticated animals that bite humans or other domesticated animals.**

- A. Unhealthy domesticated animals: Any domesticated animal showing unusual behavior or signs of illness must be examined by a veterinarian to determine if testing is necessary.
- B. Owned dogs, cats and ferrets must be quarantined, as per Section 8, for ten (10) days and observed for signs of rabies.

C. Livestock:

- (1) Livestock with proof of current rabies vaccination and who are not in an area currently epizootic for rabies must be observed for ten (10) days.
- (2) Livestock without proof of current rabies vaccination and who are not in an area currently epizootic for rabies must be separated from other animals, have limited contact with people and observed for ten (10) days.
- (3) Livestock in an area epizootic for rabies, which are or are not currently vaccinated for rabies must be observed for thirty (30) days and must have no contact with other animals and limited contact with humans. The municipality must be notified and may take action if the animal is perceived to be a public health threat.

D. Wolf hybrids: If a wolf hybrid suspected of having rabies bites or otherwise exposes to rabies a person or a domestic animal, an ACO, a local health officer or a game warden must immediately remove the wolf hybrid or cause the wolf hybrid to be removed and euthanized for testing. When in the judgement of the animal control officer, local health officer, game warden or law enforcement officer, the animal poses an immediate threat to a person or domestic animal, the animal control officer, local health officer, game warden or law enforcement officer may immediately kill or order killed that animal without destroying the head. The ACO shall make the arrangements for transportation of the head to the State Health and Environmental Testing Laboratories.

E. Stray dogs: Must be quarantined for ten (10) days in a state licensed animal shelter or euthanized and tested after eight days.

F. Stray cats: May be immediately euthanized and tested with concurrence from the municipality and the Department of Human Services, or be quarantined at a state licensed animal shelter for ten (10) days.

**6. Undomesticated animals that bite or otherwise expose humans or domesticated animals.**

- A. The undomesticated animal should be captured and humanely euthanized. The head must be submitted for rabies testing.
- B. If capture is not possible, or if imminent danger exists, the undomesticated animal may be shot by a law enforcement officer, game warden, or qualified ACO. The animal should not be shot in the head.

**7. Domesticated animals exposed to rabid or potentially rabid animals.**

A. Owned dogs, cats and ferrets with current proof of rabies vaccination.

- (1) Dogs, cats and ferrets exposed to a confirmed or suspected rabid animal must be immediately boosted with rabies vaccine and confined for forty - five (45) days in either a state licensed boarding kennel, veterinary hospital, or home in an escape proof building as per conditions in Section 8.

(2) Dogs, cats and ferrets inflicted with wounds of unknown origin must be immediately boosted with rabies vaccine and the owner or keeper must observe the animal for signs of rabies for forty - five (45) days.

B. Owned dogs, cats, and ferrets without proof of current rabies vaccination.

(1) Dogs, cats and ferrets exposed to a confirmed or suspect rabid animal, and dogs, cats and ferrets inflicted with wounds of unknown origin, should be euthanized or must be kept in quarantine in a state licensed boarding kennel, veterinary hospital, or at home under the direct supervision of the animal control officer, for six months as per conditions outlined in Section 8. The animal must be vaccinated one month before release.

C. Stray dogs: Must be quarantined eight (8) days in a state licensed animal shelter (7 MRSA Section 3913, 4B) and then euthanized. A veterinarian can authorize euthanasia prior to the eight (8) day quarantine period (7 MRSA Section 3913, 5).

D. Stray cats and ferrets without proof of current rabies vaccination must be euthanized immediately.

E. Stray or owned wildlife hybrids must be euthanized regardless of vaccination status.

F. Livestock:

(1) All cases of confirmed exposure must be reported to the Department of Agriculture, Animal Health and Industry.

(2) Vaccinated livestock will be immediately revaccinated and quarantined for forty-five (45) days with limited human contact and have no animal contact.

(3) Animals that are not currently vaccinated for rabies must be euthanized or, in lieu of euthanasia, quarantined from other animals and have limited human contact for a period of six months starting the day of the exposure.

(4) The use of the animal or the animal's by-products for human consumption is subject to the policies of the Maine Department of Agriculture and the U.S. Department of Agriculture.

### **8. Conditions of quarantine periods for domesticated animals.**

A. The quarantine period and the conditions of the quarantine, as stated on the state approved quarantine notice (see page 48), start the day of exposure.

B. The ACO must have access to the quarantine area in the event the municipality wishes to periodically check the quarantined animal.

C. The owner or keeper is responsible for separation and observation. If separation and observation is not possible on an owner's or keeper's property, the owner or keeper must

make arrangements for that animal at a licensed boarding kennel or veterinary clinic. The owner or keeper assumes all responsibility and risk for ensuring proper quarantine of a domestic animal. If the municipality determines that a domestic animal is a public health risk, the municipality may assume control of the quarantine of the animal.

- D. The owner or keeper of that animal will be financially responsible for all expenses incurred for a domesticated animal.
- E. If the animal shows any changes in health or behavior, the animal must be examined by a veterinarian, who will determine if rabies testing is indicated. The veterinarian shall be informed by the owner/keeper that the animal is under rabies quarantine.
- F. If the animal escapes, the owner or keeper must immediately notify the ACO, however, the owner or keeper is responsible and assumes all risk resulting from an escaped animal.
- G. The owner or keeper may not sell, give away, euthanize or otherwise dispose of the animal during the quarantine period.
- H. All animals must be examined by a veterinarian at the end of the quarantine period unless otherwise noted.
- I. The determination for euthanasia of all domesticated animals must be made by a veterinarian in consultation with the Department of Human Services.
- J. The animal may not run at large nor be left outside unsupervised. The animal must not be taken from the quarantined area except to be transported to a veterinarian for examination or euthanasia. During transport to and from the quarantine facility, the animal must be under the direct supervision of a responsible adult, on a leash or tether no longer than 6 feet.

#### **9. Notification and reporting.**

Any persons bitten by any animal reasonably suspected of having rabies must immediately notify the municipality in which the bite occurred. The owner, keeper or person having possession and knowledge of any animal which has bitten any person or animal or of any animal which exhibits any sign of rabies must notify the municipality in which the bite occurred.

#### **10. Decapitation and preparation of suspected rabid animals.**

- A. When decapitation and testing is recommended by the Health Environmental Testing Laboratory:
  - (1) Domesticated Animals: A veterinarian must decapitate and prepare domesticated animals that are to be tested for rabies.



- (2) Undomesticated Animal: A veterinarian, game warden or trained personnel as per the Department of Inland Fisheries & Wildlife internal memorandum must decapitate and prepare undomesticated animals that are to be tested for rabies.
- B. Decapitation and preparation of suspected rabid animal for transporting is subject to procedures written in the Rabies Management Manual, Rabies Testing section.
- C. Professionals that may assist in the coordination of transportation, include but are not limited to, ACO's, veterinarians, game wardens, law enforcement officers. Department of Human Services must have prior notification of transporting an animal to the Health and Environmental Laboratory for the purposes of rabies testing.

**Human Services Laws Governing Rabies**  
**22 MRSA**

**22 MRSA §1313. Procedures for the transportation, quarantine, euthanasia and testing of animals suspected of having rabies.**

**1. Establishment of procedures.** The commissioner, in consultation with the Commissioner of Agriculture, and the Commissioner of Inland Fisheries and Wildlife shall adopt rules, in accordance with the Maine Administrative Procedure Act, establishing procedures for responding to a report of an animal suspected of having rabies. The procedures must include provisions for the transportation, quarantine, euthanasia and testing of an animal suspected of having rabies. The procedures may differ based on the perceived public health threat determined in part by consideration of the following factors:

- A. Whether the animal is a domesticated animal for which a known effective vaccine exists and, if so, can the animal's vaccination status be verified; and
- B. Whether the animal has bitten a person or exhibited other aggressive behavior.

**2. Role of animal control officer; game warden.** An animal control officer appointed in accordance with Title 7, section 3947, receiving a report of an animal suspected of having rabies shall ensure that the procedures established pursuant to this section and section 1313-A are carried out. If the animal is an undomesticated animal, a game warden shall assist the animal control officer.

**3. Costs associated with transportation, quarantine, testing and euthanasia.** The Department of Inland Fisheries and Wildlife shall pay all costs for transportation, quarantine, euthanasia, and testing of an undomesticated animal suspected of having rabies. The owner of a domesticated animal suspected of having rabies shall pay all costs for transportation, quarantine, euthanasia and testing of the animal. If a domesticated animal is a stray or the owner is unknown, the municipality in which the animal was apprehended is responsible for transportation, quarantine, euthanasia and testing costs.

**22 MRSA §1313A. Provisions for immediate destruction of certain animals.**

If an undomesticated animal or a wolf hybrid suspected of having rabies bites or otherwise exposes to rabies a person or a domestic animal, an animal control officer, a local health officer or a game warden must immediately remove the undomesticated animal or wolf hybrid or cause the undomesticated animal or wolf hybrid to be removed and euthanized for testing. When in the judgement of the animal control officer, local health officer, game warden, or law enforcement officer the animal poses an immediate threat to a person or domestic animal, the animal control officer, local health officer, game warden, or law enforcement officer may immediately kill or order killed that animal without destroying the head. The Department of Inland Fisheries and Wildlife shall arrange for the transportation of the head to the State Health and Environmental Testing Laboratory; except that the animal control officer shall make the arrangements if the animal is a wolf hybrid.

The Department of Inland Fisheries and Wildlife shall pay transportation and testing costs for undomesticated animals. The owner of a wolf hybrid shall pay transportation and testing costs for that animal.

**22 MRSA §1313-B Civil violation, court authorization for removal and other remedies.**

1. **Violation.** A person who violates a rule established under this chapter commits a civil violation for which a forfeiture of not less than \$100. Nor more than \$500 may be adjudged for each offense. In addition, the court may include an order of restitution as part of the sentencing for costs including removing, controlling and confining the animal.
2. **Court authorization for removal.** When home quarantine procedures, as described on the official notice of quarantine, have been violated, or in the case of a wolf hybrid, when the owner fails to bring the animal to a veterinarian for euthanasia and testing or to turn the animal over to authorities as required by rules established pursuant to this chapter, an animal control officer, person acting in that capacity or law enforcement officer may apply to the District Court or Superior Court for authorization to take possession of the animal for placement, at the owner's expense, in a veterinary hospital, boarding kennel, or other suitable location for the remainder of the quarantine period or, in the case of a wolf hybrid, removal for euthanasia. At the end of the quarantine period for domestic animals, or if the animal shows signs of rabies, the person in possession of the animal must report to the court, and the court shall either dissolve the possession order or order the animal euthanized and tested for rabies.
3. **Other remedies.** In addition to filing a civil action to enforce this section:
  - A. The municipality may record a lien against the property of the owner or keeper of an animal if the person fails or refuses to comply with an order to confine or quarantine the animal;
  - B. The municipal officers or their designated agent, such as the animal control officer, shall serve written notice on the owner or keeper of the animal that specifies the action necessary to comply with the order and the time limit for compliance;
  - C. If the owner or keeper of the animal fails to comply within the time stated, the animal control officer must apply to District Court or Superior Court for an order to seize the animal and make arrangements for quarantine or euthanasia at the owner's or keeper's expense; and
  - D. If the owner or keeper of the animal fails to pay the costs of quarantine within 30 days after written demand from the municipal officers, the municipal assessors may file a record of lien against the property of the owner or keeper of the animal.

## REGULATIONS REGARDING RABIES

### IMMUNIZATION REQUIREMENTS FOR DOG LICENSURE

10: Department of Human Services  
144A: Bureau of Health  
Chapter 258: Rabies Immunization for Dogs

**Summary:** These rules state and explain the requirements for rabies vaccination of puppies and dogs, as required for licensure. These rules are consistent with 7 MRSA section 3922 (3 and 3-A) and with current veterinary practice and vaccine specifications.

1. No license shall be issued for any dog, including kennel dogs, in the State without the presentation of a valid certificate showing that the animal has been immunized against rabies.
2. Except in the case of any guide dog or hearing dog kept prior to training or for breeding purposes, the only valid certificate of immunization shall be the uniform certificate issued by the State Department of Agriculture and authenticated by a licensed veterinarian.
3. (a) The certificate must show that the date of immunization has been within 360 days for a primary immunization or within 730 days for a booster immunization.

**Exception to immunization requirement for wolf hybrids.** If a person applying for a license declares that the dog is a wolf hybrid, a municipal clerk may issue a license without proof that the dog has been immunized against rabies. In accordance with subsection 5, the license issued for the dog must state that the dog is a wolf hybrid.

(b) Booster rabies immunization must be conducted with a vaccine protecting for three years.

4. Except in the case of any guide dog or hearing dog kept prior to training or for breeding purposes, only uniform rabies certificates shall be honored.
5. Except in the case of any guide dog or hearing dog kept prior to training or for breeding purposes, dogs vaccinated in other states shall be evaluated by a Maine licensed veterinarian who shall, if appropriate, prepare a Maine uniform rabies certificate.

A dog owner, upon presentation of a rabies certificate other than an official certificate, should be advised to obtain an official certificate from a licensed Maine veterinarian.

For a guide dog or hearing dog kept prior to training or for breeding purposes, the clerk shall accept proof of immunization from another state, provided such proof shows that the immunization will be effective for the duration of the license year.

Animal Welfare Laws Governing Rabies  
7 MRSA

**7 MRSA §Section 3907. Definitions**

- 3. Animal control.** “Animal control” means control of dogs, cats, and domesticated or undomesticated animals in accordance with section 3948.
- 4. Animal control officer.** “Animal control officer” means the person appointed periodically by a municipality pursuant to chapter 725.
- 30. Wolf Hybrid.** “Wolf hybrid” means a mammal that is the offspring of the reproduction between a species of wild canid or wild canid hybrid and a domestic dog or wild canid hybrid. “Wolf hybrid” includes a mammal that is represented by its owner to be a wolf hybrid, coyote hybrid, coy dog or any other kind of wild canid hybrid.

**7 MRSA §3916. Rabies vaccinations**

- 1. Required for cats.** Except as provided in subsection 4, an owner or keeper of a cat over 3 months of age must have that cat vaccinated against rabies. Rabies vaccine must be administered by a licensed veterinarian or under the supervision of a licensed veterinarian. Upon receiving an initial vaccination, a cat is considered protected for one year and an owner or keeper of that cat must get a booster vaccination for that cat one year after the initial vaccination and subsequent booster vaccinations at intervals that do not exceed the intervals recommended by a national association of state public health veterinarians for the type of vaccine administered.
- 2. Certificate.** A licensed veterinarian who vaccinates or supervises the vaccination of a cat shall issue to the owner or keeper, a certificate of rabies vaccination approved by the State and shall indicate on the certificate the date by which a booster vaccination is required pursuant to subsection 1.
- 3. Enforcement.** A humane agent, and animal control officer or a law enforcement officer may ask an owner or keeper of a cat to present proof of a certificate of rabies vaccination from the State.
- 4. Exception.** Notwithstanding any provision of this chapter, an animal shelter operated by a nonprofit organization is not required to vaccinate an abandoned or stray cat received by the shelter.

An owner or keeper of a cat is exempt from the requirements of subsection 1 if a medical reason exists that precludes the vaccination of the cat. To qualify for this exemption, the owner or keeper must have a written statement signed by a licensed veterinarian that includes a description of the cat and the medical reason that precludes the vaccination.

## **7 MRSA §3922. Issuance of License**

**3 Proof of immunization.** Except as provided in subsection 3-A, a municipal clerk may not issue a license for a dog until the applicant has filed with the clerk proof that the dog has been immunized against rabies in accordance with rules adopted by the Commissioner of Human Services, except that the requirement of immunization may be waived by the clerk under conditions set forth by the Commissioner of Human Services.

**3-A.Exception to immunization requirement for wolf hybrids.** If a person applying for a license declares that the dog is a wolf hybrid, a municipal clerk may issue a license without proof that the dog has been immunized against rabies. In accordance with subsection 5, the license issued for the dog must state that the dog is a wolf hybrid.

## **7 MRSA §3922, sub-§5, Form of License.**

The license must state the breed, sex, color and markings of the dog, whether the animal is a dog or wolf hybrid and the name and address of the owner or keeper. If the person applying for a license declares that the dog is a wolf hybrid, the license must state that the dog is a wolf hybrid. The license must be issued in triplicate and the original must be given to the applicant and the remaining 2 copies must be retained by the municipal clerk or dog recorder.

## **7 MRSA §3922, sub-§6. Designation of wolf hybrid.**

An owner or keeper of a dog declared as a wolf hybrid may not change the license designation. A dog that has been declared a wolf hybrid must be treated as a wolf hybrid in accordance with Title 22, chapter 251, subchapter V.

## **7 MRSA §3947. Animal control officers.**

Each municipality shall appoint one or more animal control officers whose duties are enforcement of sections 3911, 3912, 3921, 3924, 3943, 3948, 3950, 3950-A and 3966 to 3970 responding to reports of animals suspected of having rabies in accordance with Title 22, sections 1313 and 1313-A and such other duties to control animals as the municipality may require.

A municipality may not appoint a person who has been convicted of a criminal violation under Title 17, chapter 42 or has been adjudicated of a civil violation for cruelty to animals under chapter 739 to the position of animal control officer.

Animal control officers must be certified in accordance with section 3906-B, subsection 4. Upon initial appointment an animal control officer must complete training and be certified by the commissioner within 6 months of appointment.

Upon appointment of an animal control officer, municipal clerks shall notify the commissioner of the name, address, and telephone number of the animal control officer.

**7 MRSA §3948. Animal control**

- 1. Control.** Municipalities shall control dogs and ferrets running at large.
- 2. Medical attention.** Law enforcement officers, humane agents and animal control officers shall take a stray animal to its owner, if known, or, if the owner is unknown, to a shelter and ensure that any injured animal that is at large or in a public way is given proper medical attention.
- 3. Domesticated and undomesticated animals.** A municipality shall control domesticated animals that are a problem in the community. A municipality shall control undomesticated animals in matters on which no other department is charged by law to regulate.