



Infectious Disease Epidemiology Report



Animal Rabies, Maine -- 2008

Background

The Infectious Disease Epidemiology program and the Maine Health and Environmental Testing Laboratory of the Maine Center for Disease Control and Prevention monitor the incidence of animal rabies through mandatory reporting of suspected animal rabies by veterinarians, animal control officers, health care providers and other health professionals. This report summarizes surveillance data on animal rabies from 2008.

Methods

Rabies is a viral disease of the central nervous system that is almost always fatal. Maine's Health and Environmental Testing Laboratory performs rabies testing on animals with human or domestic animal exposure, or animals without exposure at the submitters' expense. Laboratory-confirmed animal rabies cases are investigated to learn information on the animal's vaccination history, health status prior to euthanasia, circumstances of any exposures, and actions recommended to prevent the spread of rabies.

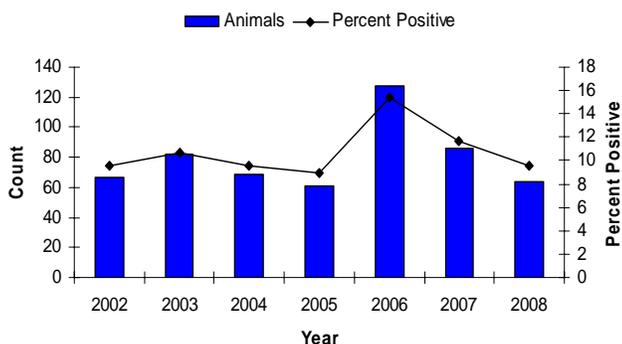
Rabies-positive Animals

A total of 676 animals were submitted for rabies testing during 2007; of these, 667 were tested. Rabies testing identified 64 (9.6%) as positive for the rabies virus (Table). As in past years, bats, foxes, raccoons, and skunks accounted for the rabid animals identified in 2008. The incidence of animal rabies decreased in 2008 as compared with previous years (Figure 1).

Table: Animals submitted for rabies testing by positive result and species – Maine, 2008

Species	Tested		Positive	
	No.	No.	No.	%
bat	233	8	3.4	
bear	1	0	0.0	
beaver	1	0	0	
cat	185	0	0	
cattle	4	0	0	
chipmunk	1	0	0	
coyote	4	0	0	
deer	1	0	0	
dog	75	0	0	
ferret	2	0	0	
fisher	1	0	0	
fox	16	3	18.8	
goat	4	0	0	
guinea pig	1	0	0	
horse	1	0	0	
muskrat	4	0	0	
opossum	4	0	0	
pig	3	0	0	
porcupine	1	0	0	
rabbit	4	0	0	
raccoon	57	32	56.1	
rat	1	0	0	
sheep	2	0	0	
skunk	42	21	50.0	
squirrel	1	0	0	
woodchuck	15	0	0	
Total	667	64	9.6	

Animal Rabies by Year – Maine, 2002-08



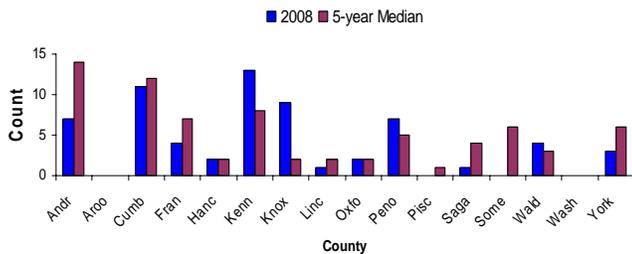
Rabies-positive animals were identified in 12 counties in 2008 (Figure 2); only Aroostook, Piscataquis, Somerset, and Washington Counties did not have rabies reported in their jurisdictions. Distribution of positive animals statewide may not be representative of rabies, because results are based on only those animals submitted for testing generally due to contact with a human or domestic animal.

Rabies Prevention

When a rabid animal – confirmed or suspected -- exposure is reported, Maine CDC works collaboratively with other state and local agencies to recommend rabies control measures.

Animal Rabies – Maine, 2008

Figure 2: Animal Rabies by County – Maine, 2008



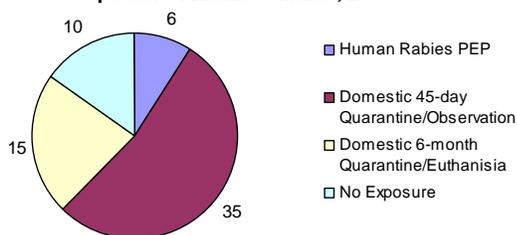
Exposures of concern include:

- Bite (e.g., penetration of skin by teeth)
- Non-bite (e.g., saliva contamination to mucous membranes)
- Physical contact with a bat where a bite cannot be ruled out
- A bat discovered in a room with a person who cannot, or is unable to, determine if physical contact may have occurred

Intended to prevent the spread of rabies, the most common control measures recommended include human post-exposure prophylaxis (PEP) and domestic animal (e.g., dog, cat or ferret) quarantine. In 2008, a total of 43 persons were recommended by Maine CDC to receive PEP as a result of an exposure to a confirmed rabid animal (6 or 14%) or an animal unavailable for testing and presumed to be rabid (37 or 86%).

Fifty lab-confirmed rabid animals required domestic animal quarantine in 2008. Domestic animals that were up-to-date on their rabies vaccine (35 or 70%) received a vaccine booster and were quarantined for 45-days. Those that were not up-to-date or never vaccinated (15 or 30%) were either euthanized or quarantined for 6-months and provided a vaccine booster (Figure 3)

Figure 3: Control Measures Associated with Rabies-positive Animals -- Maine, 2008



Discussion

Animal rabies is found regularly among wild animals and occasionally among unvaccinated domestic animals in Maine. Recognition, prompt assessment, and management of potential rabies exposures will prevent human and domestic animal rabies in Maine.

The majority of human PEP in 2008 may have been averted had the animal suspected of rabies been captured and submitted for rabies testing. Increasing public knowledge about the risks of rabies associated with wild animals, including bats, and unknown domestic animals is important to prevent future exposures.

Suspect animal and human rabies is reportable immediately by telephone to the 24-hour disease reporting line: 1-800-821-5821. Rabies PEP was added to the Notifiable Conditions List in 2008, and must be reported by calling the disease reporting line, or by faxing reports to 287-8186. Epidemiologists are available to assess animal exposures and provide guidance on the administration of PEP.

For more information on animal rabies, see the Maine CDC rabies surveillance website (http://www.maine.gov/dhhs/boh/ddc/rabies_surveillance.htm) and federal CDC rabies website (<http://www.cdc.gov/rabies/>).

References

Rabies Management Guidelines: A compendium of rabies control measures and planning strategies compiled by the Maine Rabies Work Group – 2005.

Compendium of Animal Rabies Prevention and Control, 2008; National Association of State Public Health Veterinarians, Inc. (NASPHV); MMWR; 57(RR-2); 1-9; April 18, 2008.

Human Rabies Prevention – United States, 2008; Recommendations of the Advisory Committee on Immunization Practices; MMWR; 57(RR-3); 1-26, 28; May 7, 2008.