



Infectious Disease Epidemiology Report



Animal Rabies, Maine – 2010

Background

Rabies is a viral disease of the central nervous system that is almost always fatal. It is carried by wildlife in Maine and can be transmitted to humans and other animals through a bite or scratch, or when saliva or neural tissue gets into the eyes, nose, mouth, or an open cut. Rabies disease cannot be cured, but it can be prevented with human and domestic animal vaccination, by avoiding exposures to rabid animals, and by seeking care after an exposure. This report summarizes surveillance data on animal rabies from 2010.

Methods

Maine Center for Disease Control and Prevention's (Maine CDC) Infectious Disease Epidemiology Program and Maine Health and Environmental Testing Laboratory (HETL) monitor the incidence of animal rabies through mandatory reporting by animal and human health professionals. HETL performs rabies testing on animals with human or domestic animal exposure. Laboratory-confirmed animal rabies cases are investigated to learn about the animal's vaccination history, health status prior to euthanasia, circumstances of any exposures, and actions recommended. When a confirmed or suspect exposure to a rabid animal is reported, Maine CDC works with state and local agencies to recommend rabies control measures.

Results

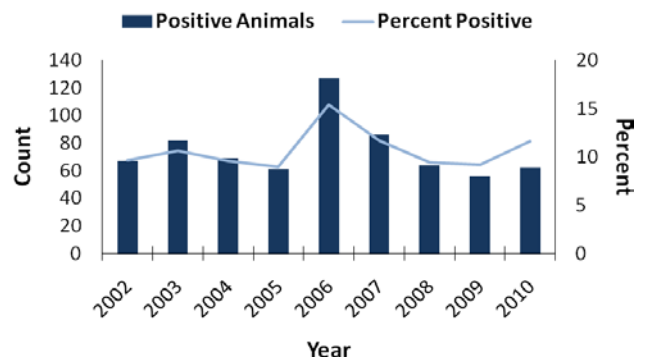
Among the 532 animals that were tested in 2010, rabies was identified in 62 (11.7%). As in previous years, bats, foxes, raccoons, and skunks accounted for the majority of rabid animals identified in 2010. However, one woodchuck and one stray cat also tested positive (Table 1).

Table: Animals tested for rabies by species - Maine, 2010

Species	Tested		Positive	
	#	#	#	%
Bat	154	5	3.2	
Bear	1	0	0	
Beaver	2	0	0	
Cat	122	1	0.8	
Cow	5	0	0	
Coyote	4	0	0	
Dog	73	0	0	
Fox gray	4	4	100.0	
Fox red	13	3	23.1	
Goat	4	0	0	
Horse	2	0	0	
Mink	2	0	0	
Moose	1	0	0	
Mouse	1	0	0	
Muskrat	3	0	0	
Opossum	1	0	0	
Porcupine	2	0	0	
Rabbit	1	0	0	
Raccoon	60	28	46.7	
Sheep	3	0	0	
Skunk	52	20	38.5	
Squirrel	1	0	0	
Weasel	2	0	0	
Woodchuck	19	1	5.3	
Total	532	62	11.7	

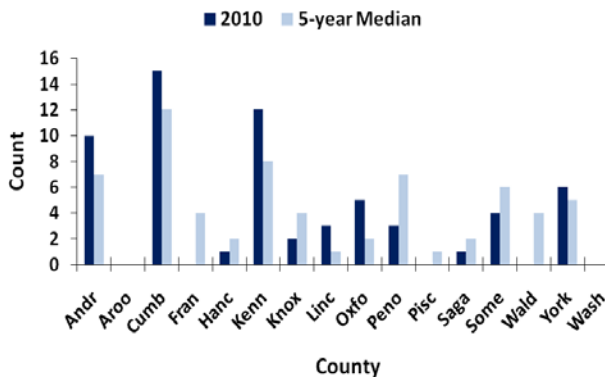
The number of cases and the percent of tested animal specimens that were positive increased slightly in 2010 compared with previous years (Figure 1).

Figure 1: Animal rabies by year - Maine, 2002-10



Animal Rabies – Maine, 2010

Figure 2: Animal rabies by county - Maine, 2010

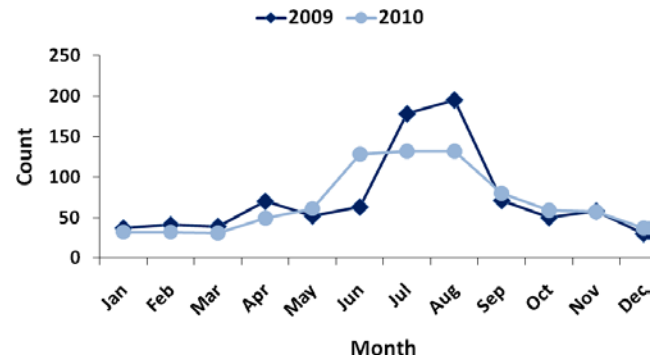


Eleven counties had rabid animals that exposed humans or domestic animals in 2010 (Figure 2). Aroostook, Franklin, Piscataquis, Waldo, and Washington counties did not have rabid animals reported in their jurisdictions. Distribution of rabid animals statewide may not be representative of the true prevalence of rabies because tests are only performed on animals submitted for testing due to contact with a human or domestic animal.

In 2010, a total of 78 persons were recommended by Maine CDC to receive rabies post-exposure prophylaxis (PEP). Of these recommendations, 20 were due to an exposure to a confirmed rabid animal. An additional 58 were due to an exposure to an animal that was not available for quarantine or testing. The majority (74%) of human rabies PEP recommended in 2010 may have been avoided if the suspect rabid animal could have been quarantined or captured and submitted for testing when the exposure occurred.

Maine CDC routinely receives requests for information and consultation related to rabies. Maine CDC is contacted about rabies most frequently between May and September. Maine CDC provided 830 rabies consultations in 2010. A similar number of rabies consultations were provided by Maine CDC last year (Figure 3). The majority of rabies consults in 2010 were with members of the public and animal health partners like Animal Control Officers (ACO). Multiple consults may come from different individuals concerning the same exposure, such as if a veterinarian, pet owner, and ACO call for guidance on the same suspect rabies exposure.

Figure 3: Rabies consultations by month - Maine, 2009-10



Prevention and Control

Increasing public knowledge about the risks of rabies associated with wild animals, including bats, and unfamiliar domestic animals is important to prevent future exposures. 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.

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

Epidemiologists are available to assess animal exposures and provide guidance on the need for rabies PEP. Rabies PEP is recommended to prevent human rabies after an exposure if the animal tests positive for rabies or is unavailable for quarantine or testing.

Animal rabies is reportable immediately by telephone to the 24-hour disease reporting line at 1-800-821-5821. For more information on animal rabies, see the Maine CDC rabies website (<http://www.mainepublichealth.gov/rabies>) and federal CDC rabies website (<http://www.cdc.gov/rabies>).