



Infectious Disease Epidemiology Report

Animal Rabies, Maine – 2012



Background

Rabies is a viral disease of the central nervous system that is almost always fatal. It is carried primarily by wildlife and occasionally unvaccinated domestic animals may become infected. Rabies can be transmitted to humans and other animals through a bite or scratch. It can also be transmitted when the animal's saliva or neural tissue gets into a person's eyes, nose, mouth, or an open cut. Rabies can be prevented by vaccinating pets, livestock, and persons with high risk jobs (e.g. veterinarians), by avoiding exposures to wild animals, and by seeking medical care after an exposure. This report summarizes surveillance data on animal rabies for 2012.

Methods

Maine Center for Disease Control and Prevention (Maine CDC) monitors the incidence of animal rabies through mandatory reporting by animal and human health professionals. Maine Health and Environmental Testing Laboratory (HETL) performs rabies testing on animals that expose a human or domestic animal. Lab-confirmed animal rabies cases are investigated to learn about the animal's vaccination history, health status prior to euthanasia, circumstances of any human or animal exposures, and to determine the need for rabies control measures. When an exposure to a rabid animal is reported, Maine CDC works with healthcare providers, game wardens, animal control officers and veterinarians to recommend rabies control measures.

United States Department of Agriculture Animal and Plant Health and Inspection Service (USDA APHIS) Wildlife Services performs supplemental surveillance for animal rabies in northern Maine among animals that did not expose a human or domestic animal. These animals are tested by USDA and positive specimens are confirmed by Federal CDC.

Results

Among the 758 animals that were tested in 2012, 91 (12%) tested positive for rabies. As in previous years, raccoons, skunks, foxes, and bats accounted for the majority of rabid animals identified in 2012. However, four cats, one dog, and one woodchuck also tested positive (Table 1). The number of cases increased in 2012 by 37.9% compared with the number of cases in 2011. This is likely due to the mild winter that allowed animals to remain active during winter months (Figure 1).

Table 1: Animals tested for rabies by species - Maine, 2012*

Species	Tested		Positive	
	#		#	%
Bat	200		5	2.5
Bear	1		0	0
Beaver	1		0	0
Boar	1		0	0
Bobcat	1		0	0
Cat	144		4	2.8
Cow	12		0	0
Coyote	6		0	0
Deer	3		0	0
Dog	96		1	1.0
Donkey	1		0	0
Ermine	1		0	0
Ferret	1		0	0
Fox	28		5	17.9
Goat	6		0	0
Horse	1		0	0
Mink	1		0	0
Moose	3		0	0
Muskrat	5		0	0
Opossum	4		0	0
Otter	2		0	0
Porcupine	3		0	0
Rabbit	2		0	0
Raccoon	130		45	34.6
Rat	1		0	0
Seal	1		0	0
Skunk	84		30	35.7
Squirrel	1		0	0
Weasel	2		0	0
Woodchuck	16		1	6.3
Total	758		91	12.0

*Includes 105 animals tested by USDA APHIS Wildlife Services, of which six (all raccoons) were positive for rabies.

Animal Rabies – Maine, 2012

Figure 1: Rabid animals by year - Maine, 1994-2012

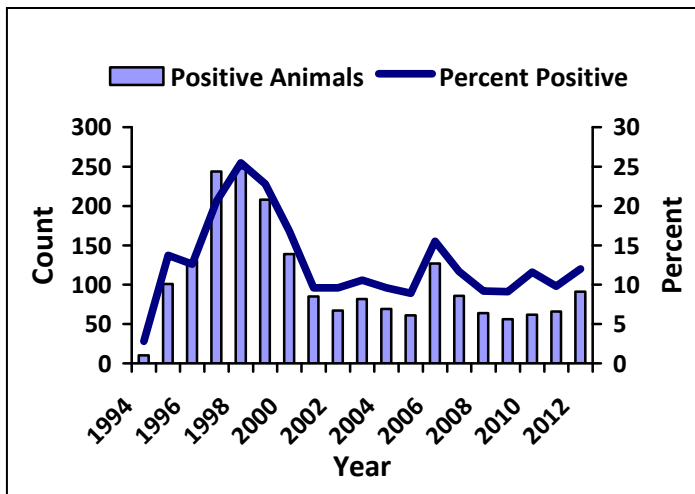
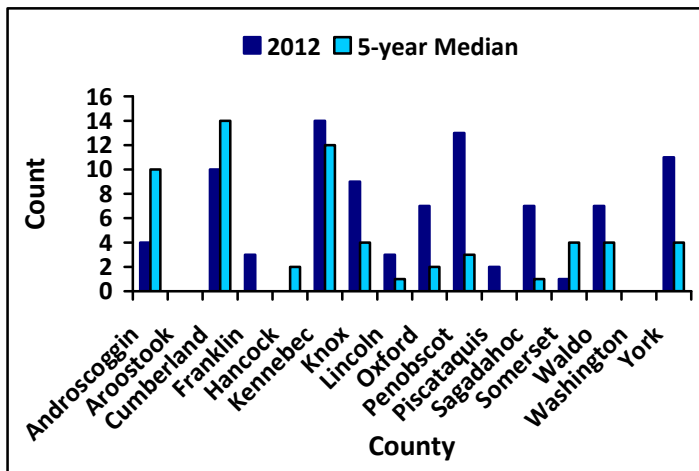


Figure 2: Rabid animals by county – Maine, 2012



Thirteen counties reported rabid animals that exposed humans or domestic animals in 2012 (Figure 2). Aroostook, Hancock, and Washington counties did not report any rabid animals in 2012. 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.

Rabies Post-Exposure Prophylaxis (PEP)

In 2012, 130 persons were recommended by Maine CDC to receive rabies PEP. This is 10% fewer than in 2011. Twenty-five (19%) of these recommendations were due to an exposure to a confirmed rabid animal. An additional 105 (81%) were due to an animal exposure in which the animal was not available for confinement and observation or testing and rabies could not be ruled out.

Rabies Consultations

Maine CDC routinely receives requests for information and consultations related to rabies. Maine CDC is contacted most frequently about rabies between May and September. Maine CDC provided 1,202 rabies consultations in 2012. This is a 15% increase from 2011. Also, 15% of these consultations were provided after regular business hours. The majority of rabies consults in 2012 were with members of the public and animal health partners (Game Wardens and Animal Control Officers).

Prevention and Control

Increasing public knowledge about the risks of rabies associated with wild animals, including bats, and stray or unknown domestic animals, is important to prevent future exposures. The increase in the number of rabid domestic animals in 2012 reinforces the importance of animal vaccination to prevent rabies. Recognition, prompt assessment, and management of potential rabies exposures are all important aspects of human and domestic animal rabies prevention in Maine.

Exposures of concern include:

- Bite (e.g., penetration of skin by teeth);
- Saliva contact with mucous membranes or exposed tissues (eyes, nose, mouth, or open wound);
- Physical contact with a bat where a bite cannot be ruled out; and
- 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 confinement and observation or testing.

Animal rabies is reportable immediately by telephone to the Maine CDC's 24-hour disease reporting and consultation line at 1-800-821-5821. Rabies PEP is reportable to Maine CDC within 48 hours of administration.

For more information:

- www.mainepublichealth.gov/rabies
- www.cdc.gov/rabies