



Infectious Disease Epidemiology Report



Animal Rabies, Maine – 2011

**Note: This surveillance report has been updated on 2/7/12 to take into account a Maine skunk that tested positive for rabies at an out-of-state laboratory.*

Background

Rabies is a viral disease of the central nervous system that is almost always fatal. It is carried primarily by wildlife and occasionally by unvaccinated domestic animals. Rabies can be transmitted to humans and other animals most often through a bite, but possibly through a scratch or when saliva or neural tissue gets into the eyes, nose, mouth, or an open cut. Rabies 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 for 2011.

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 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 to assess exposures for the need for rabies control measures. When a confirmed or suspected exposure to a rabid animal is reported, Maine CDC works with state and local agencies to recommend rabies control measures.

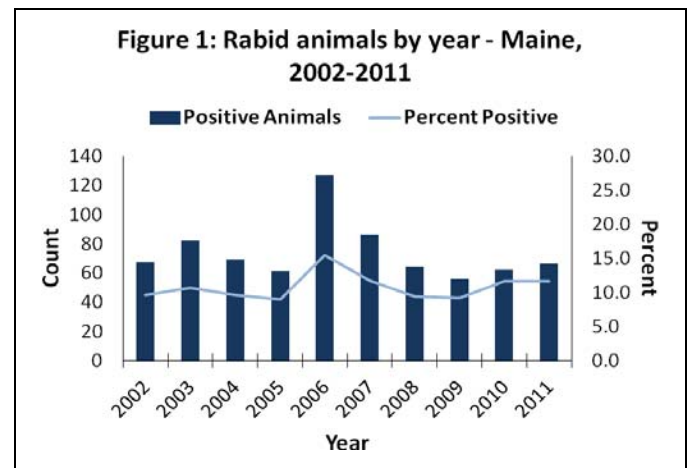
Results

Among the 566 animals that were tested in 2011, 66 (11.7%) tested positive for rabies. As in previous years, bats, foxes, raccoons, and skunks accounted for the majority of rabid animals identified in 2011. However, two sheep, two cats, one bobcat, and one horse also tested positive (Table 1). The number of cases increased slightly in 2011 compared with previous years. This is likely due to a proportional increase in the number of animals that were submitted for testing. However, the percent of tested animal specimens that were positive remained the same (Figure 1).

Table 1: Animals tested for rabies by species - Maine, 2011

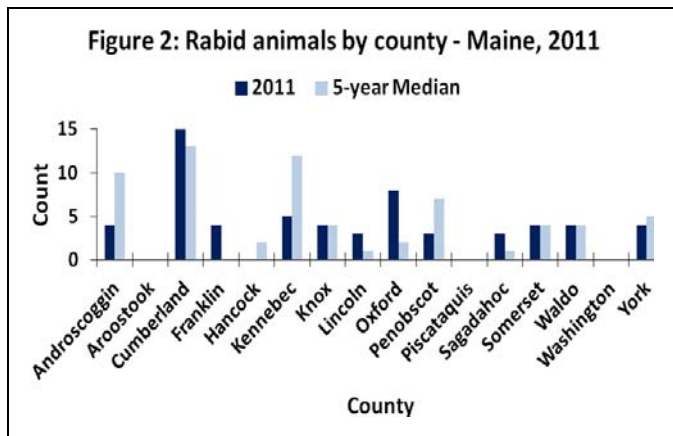
Species	Tested		Positive	
	#	#	#	%
Alpaca	1	0	0	0
Bat	196	5	2.6	
Bobcat	2	1	50.0	
Cat	150	2	1.3	
Cow	5	0	0	
Coyote	2	0	0	
Deer	1	0	0	
Dog	64	0	0	
Fisher	1	0	0	
Fox, gray	8	8	100.0	
Fox, red	14	3	21.4	
Goat	7	0	0	
Horse	5	1	20.0	
Mink	1	0	0	
Mouse	1	0	0	
Muskrat	1	0	0	
Opossum	3	0	0	
Rabbit	1	0	0	
Raccoon	48	32	66.7	
Sheep	4	2	50.0	
Skunk	38*	12*	31.6	
Squirrel	2	0	0	
Wolf hybrid	1	0	0	
Woodchuck	10	0	0	
Total	566*	66*	11.7	

*Updated to include 1 rabid skunk that was tested out-of-state.



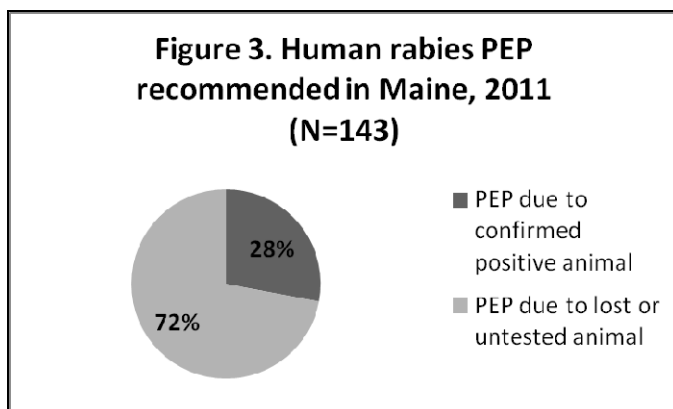
Twelve counties had rabid animals that exposed humans or domestic animals in 2011 (Figure 2).

Animal Rabies – Maine, 2011

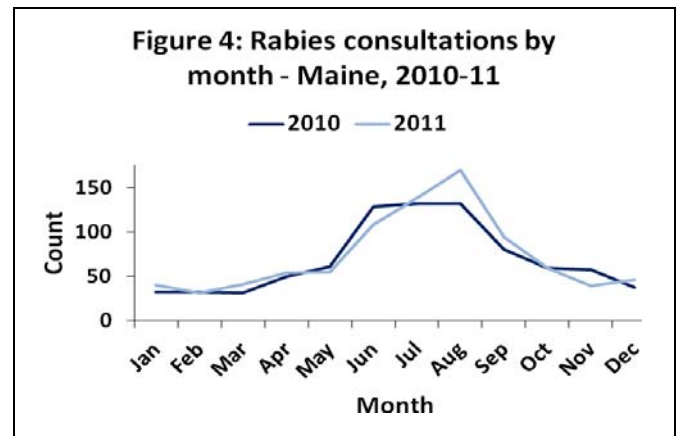


Aroostook, Hancock, Piscataquis, and Washington counties did not have rabid animals reported in their jurisdictions in 2011. Distribution of rabid animals statewide may not be representative of the true prevalence of rabies because tests are only performed on animals submitted for testing due to contact with a human or domestic animal.

In 2011, 143 persons were recommended by Maine CDC to receive rabies post-exposure prophylaxis (PEP). Of these recommendations, 40 (28%) were due to an exposure to a confirmed rabid animal. An additional 103 (72%) were due to an animal exposure in which rabies could not be ruled out (Figure 3). The latter may have been avoided had the suspect rabid animal been confined and observed or submitted for testing.



Maine CDC routinely receives requests for information and consultation related to rabies. Maine CDC is contacted most frequently about rabies between May and September. Maine CDC provided 874 rabies consultations in 2011; this is 5% more than were provided last year (Figure 4). The majority of rabies consults in 2011 were with members of the public and animal health partners like Animal Control Officers (ACO).



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 livestock in 2011 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)
- 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 confinement and observation or testing.

Animal rabies is reportable immediately by telephone to the 24-hour disease reporting line at 1-800-821-5821. Rabies PEP is reportable to Maine CDC within 48 hours of administration. For more information on animal rabies, see the Maine CDC rabies website (www.mainepublichealth.gov/rabies) and federal CDC rabies website (www.cdc.gov/rabies).