



Pat Quinn, Governor

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## MEMORANDUM

TO: Local Health Departments, Regional Offices of Illinois Department of Public Health, Illinois Department of Public Health Rabies Laboratories, Illinois Department of Agriculture Rabies Laboratories, Illinois Department of Agriculture Animal Welfare, Illinois Department of Natural Resources

FROM: Connie Austin, D.V.M., M.P.H., Ph.D.  
State Public Health Veterinarian

DATE: March 19, 2012

SUBJECT: **Animal Rabies Surveillance for 2011**

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### **Reducing the number of animals unnecessarily tested for rabies**

We appreciate the dedication of personnel from local jurisdictions in decreasing the number of animals submitted for rabies testing unnecessarily. Many bats were submitted in previous years that had not exposed a person or domestic animal. **One area where improvements could be made is in the number of domestic animals and rodents tested for rabies.** Healthy dogs and cats biting someone in a provoked manner can be confined for 10 days rather than being submitted for rabies testing. Small rodents such as squirrels, chipmunks, mice, rats, hamsters and voles are extremely low risk for rabies. Testing of small rodents for rabies is not necessary unless there is something extremely unusual about the bite. In 2011, 51 squirrels were tested. Budget constraints are prevalent in the state and we appreciate the cooperation of local jurisdictions in decreasing the number of unnecessary animal rabies tests in 2011. We request that the same thoughtful evaluation of animals needing submission for rabies testing go on in 2012 so that the IDPH laboratories can continue to provide the service of animal rabies testing in the state.

In 2011, a total of 4,533 animals were submitted for rabies testing to the Illinois Department of Agriculture (IDOA) and the Illinois Department of Public Health (IDPH) diagnostic laboratories. There were 69 animal brains not suitable for testing. Of the 4,464 animals tested, 51 were fluorescent antibody-positive for rabies. One bovine and 50 bats tested positive (Figure 1). Animals testing positive for rabies from 2002 to 2011 are listed in Table 1. In 2011, the most frequently tested animals were bats (1,590), dogs (1,558), cats (826), skunks (169), raccoons (133) and squirrels (51).

Table 1. Rabies test positive animals by species and year in Illinois, 2002-2011

Species	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bat	31	24	50	43	46	113	103	83	117	50
Cat	0	0	0	0	0	0	0	0	0	0
Cattle	0	0	0	1	0	0	0	0	0	1
Dog	0	0	0	0	0	0	0	0	0	0
Fox	0	0	0	1	0	0	0	0	0	0
Skunk	0	0	0	6	0	0	0	0	0	0
Raccoon	0	0	0	0	0	0	0	0	0	0
Horse	0	0	1	0	0	0	0	0	0	0
<b>Total</b>	<b>31</b>	<b>24</b>	<b>51</b>	<b>51</b>	<b>46</b>	<b>113</b>	<b>103</b>	<b>83</b>	<b>117</b>	<b>51</b>

Figure 1. Animal Rabies Cases by County, 2011

Positive Animal Rabies Testing  
Illinois 2011



## **BATS**

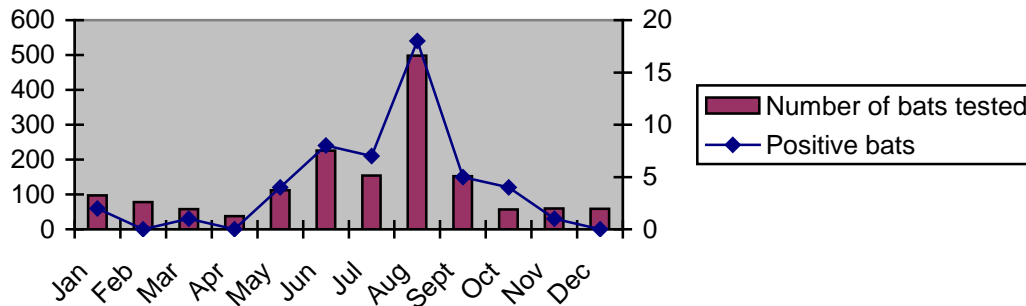
In 2011, bats were the primary species identified with rabies in Illinois. In this year, 1,590 bats were tested for rabies. Of those tested, 1,540 were determined negative for the virus and 50 were confirmed positive. An additional 45 bats were submitted for testing but specimens were unsatisfactory. The percent of bats tested which were positive for rabies in 2011 was 3 percent (See Table 2).

Table 2. Bat rabies testing results in Illinois for 2011.

Negative	Positive	Total Tested	% Positive
1,540	50	1,590	3

Geographic location of bats testing positive for rabies is shown in Figure 1. The majority, 1,142 (72 percent) of testing occurred from May to September when bats are very active and likely to come in contact with humans or pets, as demonstrated in Figure 2.

Figure 2. Number of all bats and positive bats tested in Illinois by month for 2011



## **SPECIMEN SUBMISSION**

Animal brains should be submitted for rabies testing under the following conditions:

- A mammal that has bitten a domestic animal or a person and is not eligible for a confinement period. (Note: rabbits and small rodents are not recommended for rabies testing due to their low risk of rabies).
- When an animal exhibits signs suggestive of rabies.
- Routine submission of skunks for rabies surveillance.
- All brain or head specimens where a human exposure occurred should be submitted immediately for testing and not batched with other specimens. If someone has been exposed to a possibly rabid animal, the animal should be sent immediately for testing. If the animal should test positive, the person would need to be started immediately on rabies treatment. A delay in obtaining results could result in a delay in starting needed treatment and result in a poor outcome for the exposed individual.
- For large animals, such as horses and cattle, brains should be removed from the skull before arriving at the IDPH laboratories.

- Bats that have not exposed a person or domestic animal should not be submitted for rabies testing. An example of a bat not needing testing would be if a dead bat were picked up from the ground in a park.

## **SKUNKS AND OTHER TERRESTRIAL MAMMALS**

In 2011, no skunks tested positive for rabies. Of the 4,464 animals tested, only 169 (4 percent) were skunks. The following counties submitted skunks for rabies testing DuPage (48 skunks), Cook (25), McHenry (19), Will (18), Winnebago (17), Sangamon (7), McLean (6), Lake (5), Kane (5), Jackson (3), Clinton (2), Jasper (2), Macon (2) and one each in Bond, DeWitt, Edwards, Grundy, JoDaviess, Logan, Macoupin, Madison, Marshall and Vermilion.

One bovine tested positive from Macon County in 2011. Testing at CDC Rabies laboratory showed that the bull had been infected with a bat strain of rabies. Large domestic animals with rabies are unusual in Illinois. Most large animals with rabies in Illinois have been infected with the skunk strain of rabies.

To maintain adequate surveillance in the state, testing of the skunk must be maintained, since it is the main terrestrial animal reservoir for the rabies virus in Illinois. Negative testing of wild mammals, especially skunks, in counties is one factor used to determine whether rabies post-exposure treatment is recommended for persons bitten by dog and cats that cannot be observed for the 10 day period.

### **County animal control officers are encouraged to submit skunks for testing if:**

- they have exposed a person or a domestic animal or
- they have signs suggestive of rabies, including
  - lack of fear of humans
  - aggressive behavior
  - salivation
  - sighted during the day
  - staggering
  - paralysis and muscle tremors
  - found in places unusual for a skunk

**Local animal control and local public health agencies are also asked to submit skunks which have not exposed persons or animals for surveillance purposes.** This is especially important if limited numbers of skunks have been tested for rabies in their jurisdiction. This will help in determining the extent of circulation of this strain of the virus in this area of the state. Local agencies are encouraged to contact nuisance wildlife trappers, police officers, streets and sanitation personnel and others in their jurisdictions who may have freshly killed skunks that could be tested and arrange for transportation and testing by one of the IDOA or IDPH laboratories. Please check with the IDOA laboratory about testing fees for skunk testing. The IDOA laboratories typically charge a fee for rabies testing. All rabies testing is free at the IDPH laboratories. Please share with your animal control partners.