



Rod R. Blagojevich, Governor
 Eric E. Whitaker, M.D., M.P.H., Director

525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • www.idph.state.il.us

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: February 3, 2006

SUBJECT: **Animal Rabies Surveillance for 2005**

Please share this document with your local animal control partners.

In 2005, a total of 6,061 animals were submitted for rabies testing to the Illinois Department of Agriculture (IDOA) and the Illinois Department of Public Health (IDPH) diagnostic laboratories. Fifty-one additional animal brains were submitted but were not suitable for testing. Of the total tested, 51 were fluorescent antibody-positive for rabies. Animals testing positive for rabies included bats (43), skunks (six), cattle (one) and fox (one). Animals testing positive for rabies are listed in Table 1.

Table 1. Rabies test positive animals by species and year in Illinois

Species	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Bat	23	16	16	10	22	24	31	24	50	43
Cat	1	0	0	0	0	0	0	0	0	0
Cattle	0	0	0	0	0	0	0	0	0	1
Dog	0	0	0	0	0	0	0	0	0	0
Fox	0	0	0	0	0	0	0	0	0	1
Skunk	1	4	1	0	0	0	0	0	0	6
Raccoon	0	0	0	0	0	0	0	0	0	0
Horse	0	0	0	0	0	0	0	0	1	0
Total	25	20	17	10	22	24	31	24	51	51

BATS

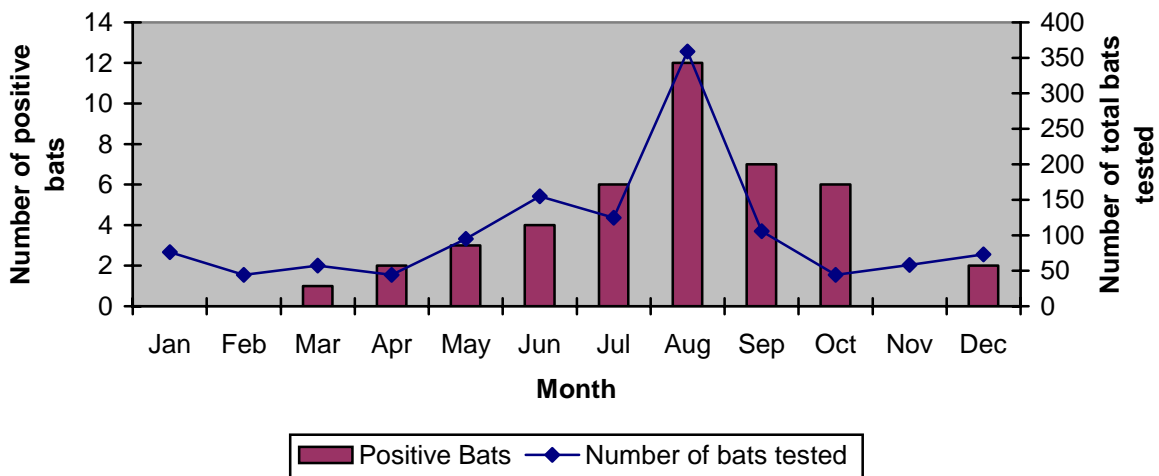
In 2005, bats were the main species identified with rabies in Illinois. In this year, 1,235 bats were tested for rabies. Of those tested, 1,192 were determined negative for the virus and 43 were confirmed positive. An additional 26 bats were submitted for testing but were not suitable for testing. The percent of bats tested which were positive for rabies in 2005 was 3.5 percent (See Table 2).

Table 2. Bat rabies testing results in Illinois for 2005.

Negative	Positive	Not Tested	Total Tested	% Positive
1,192	43	26	1,235	3.5

Geographic location of mammals testing positive for rabies is shown in the attached map. The majority 840 (68 percent) of testing occurred from May to September when bats are most active and likely to come in contact with humans or pets, as demonstrated in Figure 1.

Figure 1. Number of all bats and positive bats tested in Illinois by month for 2005.



SPECIMEN SUBMISSION

Animals should be submitted for rabies testing under the following conditions:

1. When a mammal bites a domestic animal or a person (a healthy dog, cat or ferret can usually be confined for 10 days rather than being tested; rodents and lagomorphs rarely need to be tested for rabies)
2. When a bat exposes someone to rabies per the ACIP guidelines.
3. Mammal exhibiting signs of rabies.
4. Routine submission of skunks for rabies surveillance.

All brain or head specimens 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.

SKUNKS

In 2005, six skunks tested positive for the north-central skunk variant of rabies. The number of skunks tested in the state has improved over previous years but continues to be low. Of the 5,002 animals tested for rabies, only 216 (4.3 percent) were skunks. The following counties submitted more than five skunks for rabies testing: DuPage (35 skunks tested), McLean (27), Will (24), LaSalle (20), Lake (19), DeKalb (10), Kane (7), Peoria (6), Cook (6), Grundy (6) and Jackson (6). Positive skunks were identified in the following counties: LaSalle (four), Lee (one) and DeKalb (one). In late 2004 and early 2005, a horse pastured in LaSalle County and a cow that had been pastured in LaSalle County tested positive for rabies and the United States Department of Agriculture Wildlife Services agreed to do skunk trapping in the county for surveillance purposes. Two skunks tested as a part of the trapping effort tested positive for rabies. In addition, four other skunks from LaSalle, Lee and DeKalb counties tested positive after citizens reported the skunks to animal control. One skunk came into a home and attacked and killed a kitten, two skunks were reportedly seen during daylight hours and one was caught by a dog coming through a fence.

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. This is especially important if limited numbers of skunks have been tested for rabies in their jurisdiction. Due to the terrestrial mammals identified with the skunk strain of rabies in LaSalle, Lee and DeKalb Counties, local jurisdictions in this north-central area of the state are asked to concentrate their efforts on testing of skunks for rabies for surveillance purposes. 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.

OTHER TERRESTRIAL MAMMALS

A cow with fever, head pressing, incoordination and paralysis tested positive for the north-central skunk variant of rabies in January 2005. The cow owner was from Bureau County. However, this cow had been pastured in LaSalle County during most of the incubation period in an area nearby to the horse that tested positive for rabies in 2004. Therefore, the cow's exposure to rabies may have occurred in LaSalle County. Seven persons received rabies post-exposure prophylaxis after contact with the cow.

One red fox tested positive for the bat variant of rabies in Champaign County. The fox probably acquired rabies from a bat. The fox was collected by Champaign County Animal Control after it was reported by residents to be staggering and aggressive during daylight hours at a shopping center parking lot. The fox died shortly after capture. This fox is the first terrestrial mammal testing positive for rabies in Champaign County since 1984. It is the first fox to test positive in the state since 1989. No human exposures required rabies post-exposure treatment.