Animal Rabies Surveillance - 2001

During 2001, 4,281 animals were submitted for rabies testing to the Illinois Department of Agriculture and the Illinois Department of Public Health diagnostic laboratories. Of these, 69 were determined to be unsatisfactory and could not be tested; 24 were fluorescent antibody-positive for rabies (see Table 1). The occurrence of animal rabies in Illinois is shown in Figure 1. It is the third year in a row with no terrestrial animals diagnosed with rabies.

Table 1. Animals testing positive, by species and year, Illinois

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<td>17</td>
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Figure 1. Animal Rabies in Illinois, 1940-2001
Skunks

During 2001, no skunks with rabies were identified. However, the number of skunks tested – 80 – was very low. At least one skunk was tested from each of 26 counties in Illinois; no skunks were tested in 76 counties. Figure 2 illustrates the number of skunks tested by county in 2001.

The number of skunks tested annually increased in 2000 and 2001, up from the extremely low testing numbers in 1998 and 1999 (Figure 3). To maintain adequate surveillance in the state, testing of the main terrestrial animal reservoir, the skunk, must be maintained. Negative testing of wild mammals in counties is one factor used to determine whether rabies post-exposure treatment is recommended for stray dog and cat bites. Therefore, county animal control officers are encouraged to submit skunks for testing if they have exposed a person or a domestic animal or if they have signs suggestive of rabies, including lack of fear of humans, aggressive behavior, salivation, staggering, paralysis and muscle tremors, or are found in places unusual for a skunk.

Figure 2. Skunks tested for rabies, Illinois, 2001

In addition, the IDPH and IDA laboratories have agreed to test for another year skunks that have not exposed a person or domestic animal. Local animal control and local public health agencies are encouraged to contact nuisance wildlife trappers and others in their jurisdictions who may have freshly killed skunks that could be tested and to arrange for transport and testing by one of the
laboratories. Rabies testing is free at the IDA and IDPH laboratory for this enhanced skunk surveillance program. For other animal rabies testing, the IDA laboratories charge $5 per animal. All rabies testing is free at the IDPH laboratories.

Increases in the skunk population have preceded skunk rabies outbreaks in the past. The skunk road kill index provided by the Illinois Department of Natural Resources is used to monitor the skunk population in the state (see Figure 4).

Figure 4. Reported Skunk Rabies and Road Kill Index, Illinois, 1975-2000

![Graph showing the number of rabid skunks and road kill index over time.](image)
Bats

Bats were the only species identified with rabies in 2001. Twenty-four of 848 bats (3 percent) were positive. Figure 5 shows the number of rabies positive bats over the number of bats tested in each county. Rabid bats were found from April to September when they are most active. Of the three rabid bats that were speciated, all three were identified as big brown bats.

In four of the 24 rabid bat situations, people were exposed to the bat. In one situation a person was bitten, in another a veterinarian was exposed to the saliva, in another a family was asleep in the room with a rabid bat and in the final situation, one person was bitten and one was exposed to saliva. In 16 situations no humans or animals were exposed. In three situations, dogs were exposed to the rabid bat.

number testing positive/total number tested

Figure 5. Bat rabies testing by county, Illinois, 2001

2001 Human Rabies Cases in the U.S.

One human rabies case was diagnosed in the U.S. in 2001. This case was in a California resident who had travel history to the Philippines and a rabies variant associated with Philippine dogs was isolated from the individual.

Rabies post-exposure prophylaxis (PEP) should be considered after direct contact between a human and a bat unless the exposed person is certain a bite, scratch or mucous membrane exposure did not occur. Rabies PEP should also be considered for persons who were in the same room as a bat and who might be unaware that a bite or direct contact had occurred (e.g., when a sleeping person wakes to find a bat in the room or an adult witnesses a bat in the room with an unattended child, mentally disabled person or intoxicated person). If there is definitely no direct contact between a person and a bat, no PEP is recommended. For example, if a bat flew by an awake and aware person and no physical contact occurred, no rabies PEP would be recommended.

Rabies should be considered in any patient with progressive encephalitis. Testing for human rabies can be requested through your local health department.
Summary

Reported animal rabies is at an all time low in Illinois. In 2001, 82 skunks were tested, an increase over the 61 tested statewide in 2000. Adequate surveillance of rabies in skunks is necessary to feel confident in reporting that terrestrial animal rabies does not occur in a particular area in the state. This information is vital when assessing the need for rabies post-exposure prophylaxis after stray dog and cat bites in the state. Local jurisdictions are encouraged to submit skunks for rabies testing to maintain surveillance in their locality. Raccoon strain rabies has been halted in Ohio through the use of an oral rabies baiting program. The two closest states with raccoon strain rabies cases are Pennsylvania and West Virginia.