

Rabies: How the 2008 Season Compared to the Record Season of 2007

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In 2007, the MDCH rabies laboratory received a record number of rabies submissions (3863) with a record number of positives (210). Early in 2008, the lab was on target to beat the 2007 numbers, but ended with 3839, a slight decline in overall submissions but still second in annual submissions. The positivity rate in 2008 was down as well with the lab confirming 79 (2.06%) rabies positive animals compared to 5.4% in 2007. Even with a large volume of submissions, the positivity rate dropped back to normal levels. Typically, the annual positivity rate for rabies submissions is between 1% and 3%. See the map on page 3 for a breakdown of positive specimens by county and species.

Bats, as usual, topped the list of rabies positive animals submitted to the state lab with 70 confirmed positives. The other nine positive specimens were skunks (6), fox (2), and cat (1). In 2003, the MDCH lab began strain typing non-bat rabies positives using sequence analysis. Consistent with past years, all nine non-bat specimens in 2008 were infected with North Central (NC) Skunk rabies variant.

Since 2003, there have been 45 non-bat rabies positive specimens (9 cats, 7 fox, 2 dogs, 20 skunks, 1 sheep, 5 horses, and 1 cow); all have been sequenced as NC Skunk strain.

So how did 2008 compare to 2007? Specimen submission numbers were very close (3839 vs. 3863) but rabies positivity rates were back down to normal levels (2.06% vs. 5.4%). In both years, the non-bat positive species were comparable with 5 skunks, 2 fox, 1 dog, 2 cats, and 1 horse testing positive in 2007. The major difference in the two years was the number of rabies positive bats detected 199 in 2007 vs. 70 in 2008. In a past article (*LabLink* Vol. 12, No. 4, Fall 2007), it was proposed that the increase in positivity rate might have been due to the increase in specimen submissions. This was not the case in 2008 since there were similar submission rates, but very different positivity rates. While it was not determined why there was such a large increase in rabies positive bats in 2007, that trend did not continue in 2008.



