

## West Nile Virus Surveillance Summary, 2003

### Birds

In 2003, 9695 dead birds were reported to the Massachusetts Department of Public Health (MDPH) Arbovirus Surveillance Program. Of the 599 that were tested for WNV, 280 crows, 138 blue jays, and 11 other species were positive for WNV (See table below). WNV (+) birds were found in 188 towns in all 14 counties of the state.

#### Number of Birds Reported, Tested and Positive by Species, 2003

Status	Species			Total
	Crow	Blue jay	Other	
Reported	4446	1745	3504	9695
Tested	355	191	53	599
WNV(+)	280	138	11	429

MDPH restricted routine WNV testing to crows and blue jays beginning in 2002. In addition, beginning in 2003 cities and towns were offered the option of discontinuing dead bird surveillance after two WNV positive birds were identified in their city or town. 122 towns chose to suspend testing after two positive birds had been identified.

### Mosquito Pools

Forty-eight of 5980 mosquito pools tested were WNV (+) during the 2003 transmission season. Positive pools were identified in 31 Massachusetts towns in 9 counties. Positive mosquito pools included 27 pools of *Culex species*, 9 pools of *Culex pipiens*, 6 pools of *Culiseta melanura*, 3 pools of *Culex restuans*, and one pool each of *Coquillettidia perturbans*, *Culiseta morsitans*, and *Culex salinarius*.

### Horses

Eight cases of equine WNV infection were detected in 8 counties in 2003, which is an increase from 2002 when only two equine cases of WNV were detected in 2 counties. The positive horse from Berkshire county in 2003 is believed to have contracted the infection in Pennsylvania. Five of the eight horse cases had not been vaccinated against WNV.

### Humans

Eighteen locally acquired human cases of WNV infection, including one fatality, were identified from 2003, plus one imported case in a New York state resident attending school in Massachusetts. Two of the locally acquired human cases were identified in 2004, but were likely to have been infected during the 2003 season. Human cases came from 15 towns in 7 counties. The average age of the cases was 49 years with a range of 6-81 years. 58% of the cases were male. Onsets ranged from 8/1/03-9/29/03. Fourteen of the cases required hospitalization and there was one fatality. One of the cases was the first WNV case in Massachusetts to be identified through the national blood donor-screening program introduced in 2003.

#### Specimens Submitted and WNV (+) by Year, 2001-2003\*

Species	Number WNV Tested and Positive					
	2001		2002		2003	
	Tested	Positive	Tested	Positive	Tested	Positive
Birds	2396	1104	857	575	599	429
Mosquito Pools	6297	25	6471	68	5980	48

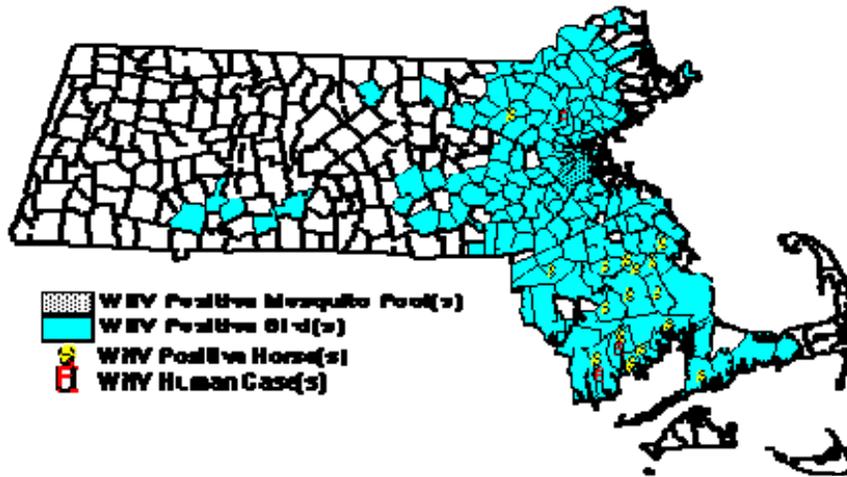
Horses	91	45	40	2	38	8
Humans	247	3	614	24**	790	19***

\*Comparisons between years must consider variations in surveillance criteria.

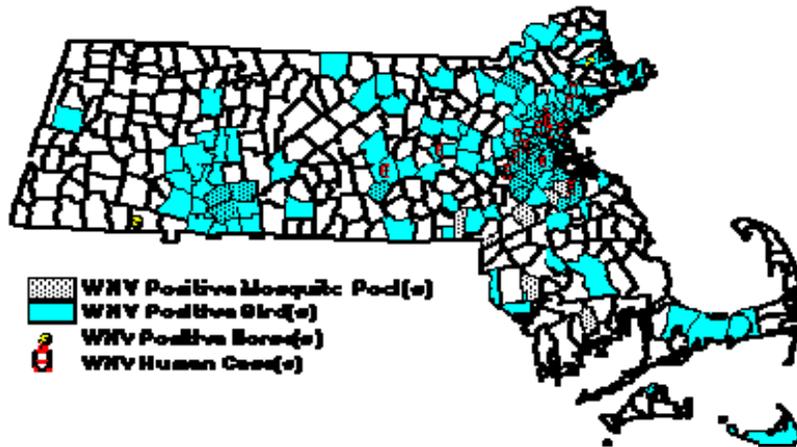
\*\*Two cases were in out of state residents; however, their exposure was believed to have been in Massachusetts.

\*\*\*One case believed to have been contracted out of state and one probable case.

### WNV Activity by Town In Massachusetts, 2001



### WNV Activity by Town In Massachusetts, 2002



## WNV Activity by Town In Massachusetts, 2003

