



Technical Bulletin

Heartworm Statistics Update

The following information indicates the method of testing, the results, and the history of travel from all animals tested at Phoenix Central Laboratory from 2000 through 2010.

NUMBER OF DOGS AND CATS TESTED FOR DIROFILARIASIS

Year	Negative Adult Antigen (Ag)	Positive Adult Antigen (Ag)	Negative Microfilaria	Positive Microfilaria	Negative Feline Antibody	Positive Feline Antibody
2000	2,257	53 (2.3%)	611	24 (3.8%)	N/A	N/A
2001	2,445	39 (1.6%)	671	17 (2.5%)	N/A	N/A
2002	2,345	32 (1.3%)	627	17 (2.6%)	N/A	N/A
2003	1,207	12 (1%)	316	6 (1.8%)	N/A	N/A
2004	2,727	39 (1.4%)	213	19 (8.2%)	N/A	N/A
2005 ¹	2,961	50 (1.7%)	903	20 (2.2%)	N/A	N/A
2006 ²	3,784	145 (3.8%)	1,086	40 (3.5%)	N/A	N/A
2007	2,387	36 (1.5%)	657	16 (2.4%)	116	3 (2.5%)
2008	3,171	42 (1.3%)	806	17 (2.1%)	176	3 (1.7%)
2009	3,340	52 (1.5%)	1,006	31 (3.0%)	50	1 (2%)
2010	2613	39 (1.5%)	647	9 (1.4%)	52	0 (0%)

Travel History for Positives:

- ¹In the fourth quarter 2005, Hurricane Katrina rescue animals began arriving in Washington State.
- ²2006: One native WA case; 5% had known history of travel; remainder Katrina rescue.
- 2007: 3 native WA cases; 67% had known history of relocation from Gulf Coast.
- 2008: 50% with known travel history to Gulf States; 26% born or relocated from other states/countries (California, Indiana, Hawaii, Illinois, Tennessee, Arkansas, Minnesota, Taiwan, South America); 14% native but travel outside Washington State, 10% unknown travel history.
- 2009: 50% with known travel to Gulf States; 21% born or relocated from other states/countries (South Carolina, Georgia, Colorado, Michigan, Illinois, Arizona, Missouri, Mexico); 29% unknown travel history, or animal has passed away.
- 2010: 39% with known travel history to Gulf States; 28% born or relocated from other states/countries (North Carolina, Hawaii, Kansas, Arizona, California, Tennessee, Taiwan, Mexico) 5% rescues with unknown travel history, 28% unknown travel history or passed away.

Heartworm Test Performance Characteristics:

The feline heartworm antibody test used by Phoenix Lab is reported to have 96% sensitivity and 98% specificity to *D. immitis*.

The canine heartworm antigen test sensitivity is dependent on worm load and sex of worm; 85% positive with one female adult worm, 95% with two, and nearly 100% positive with 3 or more female adult heartworms present. Specificity is reported to be 100%.