

TECHNICAL BULLETIN

Leptospirosis Update

Leptospirosis Statistics in the Pacific Northwest

January 2016 through August 2016

A total of 130 samples were submitted for leptospirosis titers – from 90 dogs, 31 alpacas, five horses, two elephants, and two cats. Ten paired samples were submitted and thus there were 120 animals for which individual samples were submitted for testing. Although cats can become infected, clinical leptospirosis is rare in the cat.

Thus far in 2016, there were ten positive samples indicating recent infection, nine based on the results of a single titer and one based on a rising titer. The positives were all in dogs.

Seven positive dogs had the highest titer to *L. autumnalis*, two dogs had the highest titer to *L. grippityphosa*, and one dog had titers equally high to three serovars, *L. autumnalis*, *L. bratislava*, and *L. pomona*.

The monthly occurrence of leptospirosis cases were as follows:

January:	10%	February:	10%	March:	10%
April:	20%	May:	20%	June:	20%
July:	0%	August:	10%		

Location of clinics with positive cases: **Two cases:** Bainbridge Island, Seattle. **One case each:** Bellevue, Coupeville, Enumclaw, Nooksack, Poulsbo, and Tacoma.

Leptospirosis Update

January 2015 through December 2015

A total of 179 samples were submitted for leptospirosis titers – from 167 dogs, eight horses, two elephants, one goat and one Norway Rat. Twelve paired samples were submitted and thus there were 167 animals for which individual samples were submitted for testing.

According to the Washington Animal Disease Diagnostic Laboratory (WADDL) at Washington State University, where titers are run, recent infection to a serovar is defined by a positive titer greater than or equal to 1:800 or a four-fold rise in titer on paired samples. In 2015, there were twenty positive samples indicating recent infection, all based on the results of a single titer and all but one in dogs. There was one positive horse.

There were less positive cases of leptospirosis in 2015. For comparison, there were 189 animals tested with 29 positive cases in 2014. In 2013, 161 animals were tested with seventeen positive cases and in 2012, 178 animals tested with seventeen positive cases.

According to WADDL, the serovar with the highest titer is determined to be the predominant infecting serovar. Serovars tested include: *L. autumnalis*, *L. bratislava*, *L. canicola*, *L. hardjo*, *L. grippityphosa*, *L. icterohemorrhagica* and *L. pomona*. In 2015, twelve positive dogs had the highest titer to *L. autumnalis*, one dog had the highest titer to *L. grippityphosa* and one dog had the highest titer to *L. icterohemorrhagica*. In two dogs titers were equally high to *L. autumnalis* and *L. grippityphosa*, another two dogs had titers equally high to *L. autumnalis* and *L. pomona*, and one dog had titers equally high to *L. bratislava* and *L. icterohemorrhagica*. The horse has the highest titer to *L. bratislava*.

We also tracked the monthly occurrence of leptospirosis cases – percentage of cases that were considered positive (results rounded to nearest whole number):

January:	10%	February:	20%	March:	15%
April:	0%	May:	15%	June:	5%
July:	5%	August:	0%	September:	5%
October:	10%	November:	10%	December:	5%

Location of clinics with positive cases: **Four cases:** Seattle. **Two cases:** Bellevue, Federal Way, Raymond. **One case each:** Coupeville, Kirkland, Montlake Terrace, Port Townsend, Renton, Spokane, Tacoma, Vashon, Winlock, Winslow (location of the equine).