Leptospirosis is a bacterial disease that infects humans and animals. Disease in humans can range from asymptomatic infections to much more serious illness, involving kidney damage, meningitis, liver failure, etc. The bacterial disease has been reported in feral swine in a few cases in the United States, but little is known about the geographic distribution or apparent prevalence of leptospirosis in feral swine throughout the country.

The NWDP has utilized a subset of feral swine samples stored in the feral swine serum archive to determine apparent prevalence of leptospirosis in these previously collected samples. Microagglutination testing is almost complete for the approximate 2000 samples submitted to Colorado State University. Samples were screened for exposure to 6 serovars (hardjo, icterohemorrhagiae, canicola, grippotyphosa, Pomona, and Bratislava) common in domestic animals or humans. A sample was identified as leptospirosis positive if it tested positive to any of the serovars.

There is a considerable amount of cross-reaction between serovars making it difficult to be sure that a positive result for a particular serovar was not the result of a cross reaction with a different serovar. Initial results indicate that exposure to leptospirosis is ubiquitous in feral swine throughout the United States. The chart above indicates the percent positive, but does not adjust for sample size. The preliminary results also do not report all of the samples that were submitted because testing is still underway.

Due to the high apparent prevalence rates of leptospirosis in feral swine, the NWDP is exploring expanding surveillance to additional species such as coyotes and raccoons. Tissue samples will also be collected from feral swine in previously identified leptospirosis positive areas to determine whether feral swine are actively shedding the bacteria and thus serve as a potential source of infection to humans and other animals.

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