National Wildlife Disease Program

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Program Activity Report (PAR)

Leptospirosis in Feral Swine

The National Wildlife Disease Program is conducting a retrospective surveillance for leptospirosis in feral swine using the Feral Swine Serum Archive located at Colorado State University. Leptospirosis is a contagious disease of swine and many other animals, including humans, and is caused by infection with any of the numerous known *Leptospira* species. Humans typically become infected through the skin or mucous membranes after exposure to water contaminated with animal urine. Clinical signs of leptospirosis appear within 4 to 14 days after exposure and include fever, chills, and intense headache, and may be followed by jaundice, tea-colored urine, and difficulty urinating. In extreme cases, complications like meningitis, renal failure, and respiratory distress may arise and lead to death.

Archive samples are being screened for *L. hardjo*, *L. icterohemorrhagiae*, *L. canicola*, *L. grippotyphosa*, *L. Pomona*, and *L. Bratislava*. *L. hardjo* is of importance to the cattle industry and can also infect humans, while *L. Canicola* and *L. grippotyphosa* are most commonly found in dogs. In domestic pigs, *L. Pomona* and *L. Bratislava* are the species most often identified; *L. icterohemorrhagiae* is typically found in rats. To date, little information is available on leptospirosis in feral swine.

Screening for these serovars will provide information on the geographic distribution of leptospirosis enabling development of risk assessments on transmission from feral swine to domestic swine and other livestock, humans, and/or dogs. Unfortunately, there is a considerable amount of cross-reaction between serovars and even though a sample may have a higher titer to a specific serovar, it does not necessarily mean that it is the most common or prevalent type.

The first set of samples was tested last week and thus far nine states have tested positive. Results will be used to identify additional locations for more targeted surveillance.

For more information regarding this project please contact Kerri.Pedersen@aphis.usda.gov

The original artwork on this page was created by the National Wildlife Disease Program's Erika Kampe and Sarah Goff