Leptospirosis is a worldwide spread disease which affects mammalian species namely cattle and swine, those are main livestock in France. In animal, the clinical signs observed are mainly reproductive disorders, they are not specific. Leptospirosis is usually suspected as part of a reproductive disorder investigation (such as looking for Brucellosis or Infectious Bovine Rhinotracheitis in cattle and virus of respiratory and reproductive disorder syndromes or parvovirus in swine). The aim of our study was to map at-risk areas in France for a surveillance purpose. Leptopira survival in the environment is known to rely on temperature and humidity. The exposure of domestic species is expected to be different in different habitats. Consequently, the proportion of exposed livestock should be different from an area to another. The first objective of the study was to assess the frequency of *leptospira* antibodies in swine and cattle with a reproduction disorder. The second objective was to map at risk regions for the main detected serovars. The third objective was to use the geographic distribution of *leptospira* serovars to draw hypothesis on the reservoir species to be implied, in order to plan appropriate surveillance in wildlife. This study was based on *leptospira* serology results with the Micro agglutination test (MAT) carried out at the veterinary reference laboratory for *leptospira* diagnosis (Laboratoire des Leptospires). Results from 2008 to 2011 with whole data were included in the study. Serology test results were considered as tested positive when titer was over a 1:100 in cattle as in swine. Risk map for *leptospira* in livestock and (afterward) in wild animal reservoir should be useful in a public health approach with the further aim to document transmission risk and route of transmission to humans.