

PANORAMA

Thematic portfolio



Controlling bovine tuberculosis: a One Health challenge



PERSPECTIVES

DOSSIER

AROUND THE WORLD

Mycobacterium bovis infection was first described in free-ranging wildlife in France in 2001, and was subsequently detected in hunter-harvested ungulates and badgers in areas where outbreaks of bovine tuberculosis (bTB) were also detected in cattle. Increasing concerns about bTB in wildlife led the General Directorate for Food (DGAL) and the main French institutions involved in animal health and wildlife management to establish a national surveillance system for bTB in free-ranging wildlife.

This surveillance system is known as **Sylvatub**. The system coordinates the activities of various national and local partners. The main goal of Sylvatub is to detect and monitor *M. bovis* infection in wildlife through a combination of passive and active surveillance protocols, adapted to the estimated risk level in each part of the country. Event-based surveillance relies on *M. bovis* identification (molecular detection) in:

- a) gross lesions detected in hunter-harvested ungulates
- b) ungulates that are found dead or dying
- c) road-killed badgers.

Additional targeted surveillance of badgers, wild boar and red deer is carried out on samples from trapped or hunted animals in at-risk areas.

With the exception of one unexplained case in a wild boar, *M. bovis* infection in free-living wildlife has always been detected in the vicinity of bTB outbreaks in cattle, with the same genotype of the infectious *M. bovis* strains. Since 2012, *M. bovis* has been actively monitored in these infected areas and detected mainly in badgers and wild boar, with apparent prevalence rates of 4.57–5.14% and 2.37–3.04%, respectively, depending on the diagnostic test used (culture or polymerase chain reaction), the sample collection period and the area concerned. Sporadic infection has also been detected in red and roe deer.

This surveillance has demonstrated that *M. bovis* infection in France involves multiple hosts in different areas (Fig. 1), including cattle and wildlife. However, prevalence rates are lower than those observed in badgers in the United Kingdom or in wild boar in Spain.

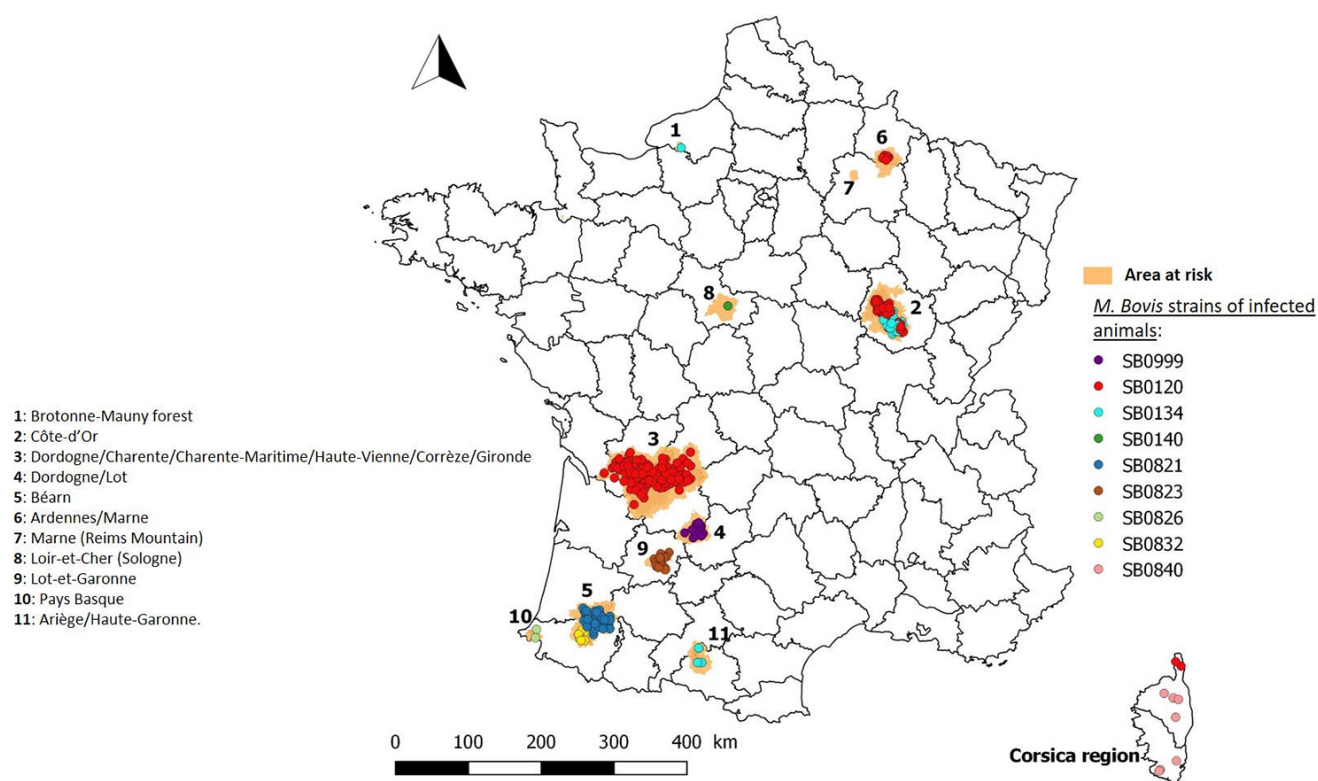


Fig. 1. Location of *Mycobacterium bovis* strains in wildlife in France

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AROUND THE WORLD

NETWORK INITIATIVES

Mycobacterium bovis infection of wildlife in France

Assessment through a national surveillance system, Sylvatub (Abstract from manuscript)

KEYWORDS

#badger, #bovine tuberculosis, #France, #Frontiers in Veterinary Science, #Mycobacterium bovis, #surveillance, #Sylvatub, #wild boar, #wildlife.

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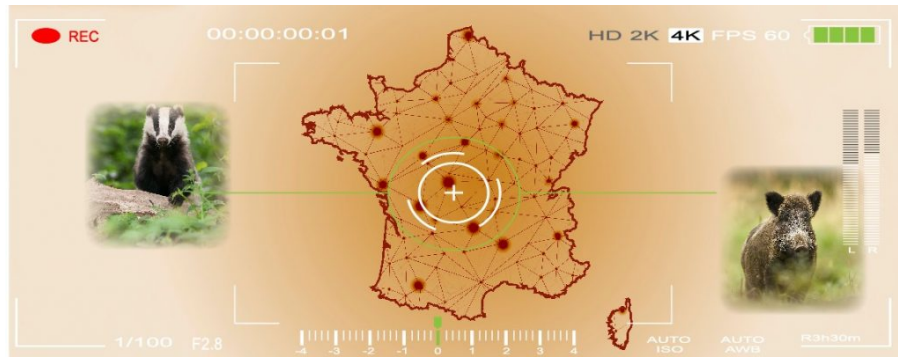
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