

# AFRICAN SWINE FEVER – BETWEEN THE POLES OF TEXTBOOK, HISTORY AND CURRENT SITUATION

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African swine fever (ASF) is one of the most important epizootic diseases threatening international animal health and profitable pig production in developed and developing countries. The eponymous virus, ASF virus (ASFV), is currently the only member of the *Asfarviridae* family and the genus *Asfivirus* contained therein. In its natural distribution area, the countries of Sub-Saharan Africa, the pathogen is transmitted asymptotically between soft ticks of the genus *Ornithodoros* and African wild boar (warthogs and bush pigs). However, if the pathogen enters the domestic pig population, severe, mostly fatal forms of disease associated with the symptoms of a viral haemorrhagic fever prevail. European wild boar are also fully susceptible and cannot be compared with African wild suids in terms of disease progression and dynamics. Out of the sylvatic cycle, the virus can be directly and indirectly transmitted without its competent vector.

Since 2007, highly virulent ASFV strains have spread across the Trans-Caucasian countries and the Russian Federation into the European Union. In the meantime, the disease affects the Baltic EU Member States, Poland, Hungary, the Czech Republic, and Romania. In many areas, wild boar are primarily affected, which makes the fight much more difficult, especially in the absence of safe and efficacious vaccines.

Arriving in the EU, the disease has shown a dynamic that was not predicted or assumed based on historical data: there was neither a self-limitation/extinction nor a rapid spread. For the first time, the disease was able to establish itself independent of domestic pigs in the wild boar population. Many transmission pathways and the epidemiology of the disease must therefore be re-reviewed and evaluated. In detail, there is a serious lack of knowledge regarding the possible role of mechanical vectors (tabanids, mosquitoes, hard ticks), the ultimate fate of convalescent, possibly virus-bearing animals, and the full characterization of the viral strains involved. Moreover, data wild boar biology are fragmentary when it comes to home range, behavior towards carcasses, intensity of social interactions and mingling of animals of different sounders etc.

The talks will focus on areas where textbook knowledge and current disease dynamics do not match. In addition, the outcome of recent studies will be addressed and discussed.