

## **Managing infectious cattle abortion at wildlife-livestock-human interfaces of the SE Lowveld of Zimbabwe: The need for a multidisciplinary approach**

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<Infectious causes of cattle abortions have significant impacts on livestock and people the health in developing countries. Adopting One Health principles for coordinated surveillance and simultaneous preventative actions in animal and human populations has proved to be efficient and cost-effective. However, wild ruminants can also be infected with the same abortive pathogens, which may considerably complicate the management strategies. We synthesise the results of several eco-epidemiology and ethno-veterinary studies carried out over the past decade in the Great Limpopo Transfrontier Conservation Area in Zimbabwe. Serological surveys indicated that Rift valley fever virus circulate in cattle and African buffalo populations, whereas brucellosis apparently infects only cattle. In areas where there was no physical barrier between cattle and wildlife, farmers interviewed perceived that the number of cattle abortions was higher, and the proportion of farmers perceiving wildlife as playing a role in livestock abortions was higher compared to other sites. Monitoring of movements of sympatric cattle and buffalo with GPS collars demonstrated seasonal home range overlap potentially resulting in interspecific transmission of brucellosis and RVF through aborted fetuses. Several management options are discussed including awareness campaigns, vaccination and other preventive actions to limit infective contacts between wildlife, livestock and people.>