

Abstract

In this study, an investigation was undertaken to find out whether Peste des petits ruminants (PPR) virus does infect incontact animals apart from its hosts sheep and goats. The number of samples to be tested was determined using the formula $n = Z^2 \alpha pq / L^2$ and tested by competitive enzyme linked immunosorbent assay (cELISA). Two hundred and forty adult cattle samples collected from Turkana and West Pokot districts of Kenya were tested. Adult camel samples were collected from Wajir and Garissa districts of Kenya and 162 samples were tested. Wildlife species; 98 buffalo serum samples were tested collected from Tsavo and Meru national parks, 93 warthog serum samples were tested collected from Garissa district and Meru national park and 9 giraffe serum samples were tested collected from the Tsavo national park. All wildlife animal species were aged 1-3 years. Turkana, West Pokot and Wajir districts were mapped by the DVS to have experienced PPR outbreaks in 2007 and 2008. In this study, 10 cattle serum samples recorded PPR antibodies on cELISA. This was a 4.2% PPR seroprevalence. Of the 10 cattle, 8 were from Turkana district and 2 from West Pokot. Seven of the 10 positive cattle were females and 3 males. The camel samples recorded a 3.13 % PPR seroprevalence with five animals testing positive out of the tested 160. All the camel serum samples testing positive were collected from Wajir district. The wildlife species serum samples tested negative for PPR antibodies on cELISA. The occurrence of PPR antibodies in cattle and camel is an indicator that these two species do naturally get infected by the PPR virus without running a clinical disease. This allows for development of sentinel cattle and camel herds in the PPR high risk districts of Kenya to be used for surveillance and indicators of increased virus circulation amongst goat and sheep populations.