

# RESULTS PRESENTED AT THE 3<sup>RD</sup> SYMPOSIUM OF THE BELGIAN WILDLIFE DISEASE SOCIETY – FRIDAY 16 OCTOBER 2009, QUEEN ASTRID MILITARY HOSPITAL, BRUSSELS

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## A THREE-YEAR SURVEY ON *Anaplasma phagocytophilum* IN WILD CERVIDS POPULATIONS IN SOUTHERN BELGIUM

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Through an active surveillance program, 1071 wild hunter-killed ruminants [749 red deer (*Cervus elaphus*), 279 roe deer (*Capreolus capreolus*) and 43 mouflons (*Ovis aries*)] were sampled (serum and/or spleen) during autumns of 2004 to 2006. The objective was to determine the prevalence of *Anaplasma phagocytophilum* in these wild populations present in region of wallonia (24 studied forest districts). Serum samples were screened for anti-*A. phagocytophilum* antibodies using an Indirect Immunofluorescent Assay (IFA IgG). Spleen fragments for 45 roe deer, seroreactive by IFA, were sought for bacterial DNA by PCR.

Overall, apparent seroprevalence were higher in roe deer [91 % (IC 95 % : 87,64 - 94,36)] than in red deer [44,3 % (IC 95% : 40,74 - 47,86)] and mouflon [58,1 (IC 95% : 43,4 - 72,8)]. In red deer, apparent seroprevalence decreased significantly with time (from 54,9 % in 2004 to 37,5 % en 2006) and results were significantly higher for cervids sampled in south forest districts (51,1 %) than for those sampled in center forest districts ( 39,8 %). In roe deer, apparent seroprevalences were maintained with time (88,2 % in 2004 to 94,7 % in 2006) but no significant difference in seroprevalence was seen for year or region of sampling. Of 45 roe deer tested, 21 spleen fragments (46,7 %) were *msp-2* PCR positive.

In conclusion, this study gives the first insights of presence of *A. phagocytophilum* in wild cervids populations in region of Wallonia. These cervids, and specially roe deer, could be used as sentinels in epidemiologic studies related to this pathology. However, further studies are needed to determine if variant strains of *A. phagocytophilum* present in wildlife are human-infective strains.