

Causes of mortality in roe deer (*Capreolus capreolus*) in Southern Belgium: results of the passive surveillance 2010

Grégoire F, Wirtgen M, Volpe S, Nahayo A, Pirson J, Paternostre J and Linden A

WildScreen.be, Surveillance Network of Wildlife Diseases in Southern Belgium, Faculty of Veterinary Medicine, Sart-Tilman B43A University of Liege, B-4000 Liege, Belgium

f.gregoire@ulg.ac.be; a.linden@ulg.ac.be

Through a passive surveillance program, 69 roe deer (found dead or selectively culled for illness) were collected in 2010 in Wallonia. Necropsy was performed at the Veterinary Faculty of Liège according to a systematic protocol. Targeted microbiological and histopathological analyses were performed on the basis of gross lesions. No massive mortality in roe deer was recorded this year although several hunting districts deplored a decrease in their roe deer population. This statement is not unusual but the decreases are generally localised and temporary; a territory that suffered a crash of its population recovers one or two years later.

Regarding the found dead animals transported at the Faculty (n = 52), the distribution of causes of death was as follows: parasitic 24/52, traumatic 15/52, infectious 3/52, miscellaneous 4/52 and undetermined causes 6/52. Infectious causes included paratuberculosis, enterotoxemia and acute meningitis; miscellaneous causes were rumenal acidosis and tumours. Animals that didn't show any significant gross lesions or cases for which putrefaction didn't allow a post-mortem diagnosis were listed as undetermined causes. Among culled animals (n = 17), various causes of morbidity were diagnosed: heavy parasitism (n = 6), traumatic injuries (n = 4), ocular lesions (n = 2), acute polyarthritis (n = 1), chronic abscess (n = 1), rumenal acidosis (n = 1), and undetermined etiology in two cases. The roe deer showing heavy parasitic loads were mostly female adults (13/30) and juveniles (16/30). All except one showed severe body alteration. Nine roe deer showed diarrhoea. The diagnosis of heavy parasitism was performed with macroscopic observation in airways/gastrointestinal tract and coprological examination (norms fixed upon animals shoot during hunting season).

Overall, after road injuries, parasitic diseases are the major causes of mortality in roe deer in southern Belgium. Whether or not parasitic diseases are secondary to other pathogens is difficult to determine. More attention should be given to undetermined cases and passive surveillance has to be continuously stimulated to maintain a sufficient caseload.