

TALKS

Twenty years of muntjac: monitoring and management of an emerging deer species in Flanders (Belgium)

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Chinese muntjac (*Muntiacus reevesi*) is a small-sized deer of Asian origin. A large population has developed in the United Kingdom, causing significant environmental and economic damage. To avoid a similar scenario on the European continent, muntjac has now been included on the list of species of Union concern (Regulation 1143/2014). In the past decade, muntjac has mainly been reported from Flanders (northern Belgium). The first sighting dates from 2004, but observations increased steeply after 2012 in particular.

In this presentation, we first zoom in on the region-wide spread of muntjac, its causes, and how it is counteracted. To understand the dynamics, we rely on genetic analyses that elucidate the structure between populations using SNPs (single nucleotide polymorphisms). These have shown how both natural processes (e.g., dispersal) and human actions (e.g. exchange) play a role. Though most sites in Flanders are related to some extent, the main population is genetically distinct. The origin of that population has now also been confirmed.

Second, we show how monitoring through camera traps supports site-level management. The recordings illustrate the secretive nature of muntjac, allowing it to thrive well in a suburban park with intense recreation. By inferring activity patterns, and estimating abundance through encounter models, the authorities can more accurately track the effects of their culling efforts.

The situation of muntjac in the European Union deserves to be closely monitored. The current policy in Flanders seems to have averted further spread relatively well so far, albeit with considerable effort. The pressing question is how the species can be sustainably contained and whether eradication is possible at all.