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## Urban wild boar management : a resource selection analysis based on eradication data

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The invasion by wild boar or feral pig of urban areas is a phenomenon widely observed in the world. It may induce many conflicts when ranging in human-dominated areas.

In Belgium, the city of Seraing (suburb of Liège, South-East of Belgium), among others cities, is being faced with wild boar invasion since the late 90's. Its geographic situation is particularly favorable, being surrounded by forest on its southern side and delimited by the river Meuse on its northern side, this obstacle being considered as a serious break for the natural range extension of the species. The forest (around 1200 ha) is mainly made of broadleaved species with some coniferous stands where wild boar has established at the end of the 80's. According to the nature of the ownership, the wild boar management is contrasting : no hunting in the public areas dedicated to tourism on the one hand, artificial feeding and drive hunts in the private ones on the other hand.

In 2010, the municipality faced with too many complaints from the citizens because of the increased wild boar population in the city with individuals showing a very familiar behavior. It was decided to eradicate wild boar in the city and to re-allow hunting in the surrounding public forests. The eradication was implemented according to a regional law on the basis of public health and security. The municipality designated a 'destroyer' (hunter with a special license) and the regional administration gave the authorization for periods and locations of destruction. In each dangerous case, the police call the hunter for shooting the animals. Each observation and shooting place (street name) was registered by the destroyer. From 2010 till end of 2012, he killed 200 wild boars on an area of about 60 ha. In 2013 the eradication plan was stopped because of a lower number of conflicts and / or a modified behavior of the animals being much less familiar (and difficult to shot).

This study aims to analyze the habitat selection by wild boar within the city. We designed a 100 m x 100m sampling grid on the area of interest. The 'use' data are the locations registered by the destroyer from 2010 and 2012. The 'resource' data are static environmental data (area of bushes, broad-leaved and coniferous groves and lawns), infrastructure (density of motorways, roads, railways, garden fences) and proximity to habitats of probable origin of wild boar such as forest edges but also brownfields. We used a logistic regression model (Manly et al 1993) to test the characteristics of each 1ha - square in relation to wild boar presence or absence.

The results should highlight the main variables that explained the presence of wild boar in the city of Seraing from 2010 to 2012. Some management guidelines should help the municipality to prevent new invasions of this conflict species by reducing the attractiveness of the urban landscape in addition to a better control of the forest-living boar population.