

# Home ranges and habitat use of the wild boar (*Sus scrofa* L.) in Wallonia (Belgium) : scope, methods and first results



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## Introduction

In Belgium, the wild boar population has increased strongly this last decade (fig.1). In some places, their overabundance has led to an increase in damages to meadows and crops. Currently, in Belgium, there is no existence of scientific basis to assist hunters about wild boar management.

The main objective of the project is to study the wild boar behaviour to improve the management of its population and habitat.

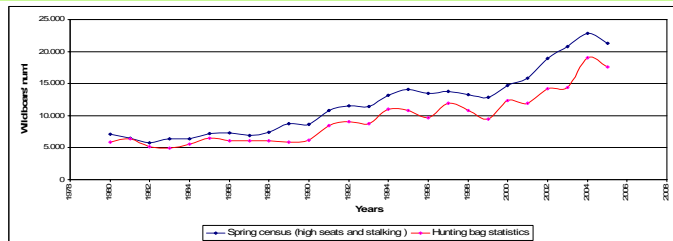


Fig.1 : Population statistics of the wild boar in Wallonia (MRW-DGRNE-DNF)

## Materials and Methods



Describe spatial behaviour by monitoring radio-collared individuals on 3 different representative and typical sub-regions of Wallonia selected according to their habitat quality, population density and artificial feeding availability (Fig.2)

	Food level <sup>1</sup>	artificial feedings	Densities <sup>2</sup>
Famenne	73	yes	69
St Hubert	50	Locally	25 - 75
Hertogenwald	44	No	7

Table 1 : description of the study areas. <sup>1</sup> Ueckermann index - <sup>2</sup> [inds/1000 ha of forest]

Fig.2 : LEFT - Belgium (red) - RIGHT - The 3 study areas are localised in Famenne, in Hertogenwald and in St Hubert

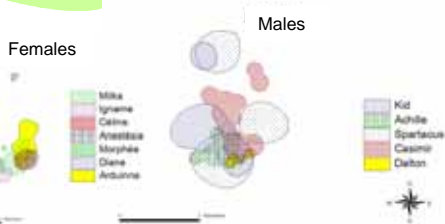
## Results

A total amount of **35** adults were trapped and fitted with **radio- or GPS collars** (May 2007).



- 3 monitored on a over-one year-period
- 12 have lost their collars
- 10 died (8 by shooting - 2 naturally)

## Home ranges



Variation in home range (HR - fixed Kernel 95%) size was highlighted according to  
**the sex** :  $HR_{male}$  (2112 ha  $\pm$  1514) >  $HR_{female}$  female (462 ha  $\pm$  111)  
**the habitat quality** : HR smaller in the richest areas (Famenne > St Hubert > Hertogenwald)  
**the hunting season** : HR larger during hunting season

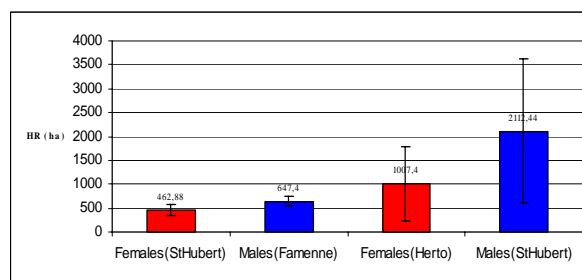


Fig.4 : Home ranges looked larger in poorest territory. In red - females ; in blue - males.

Fig.3 : Home ranges (Kernel 95%) of each individuals tracked during at least 3 month in St Hubert

## Habitat use

During the day, the wild boar selected generally thickets, windfallen woods and sloping areas as resting places. Wild boar came up against several obstacles: river in spate, highway and crop protection fences.

A difference in habitat use behaviour between autumns 2005 (no mast) and 2006 (mast) is underlined (Fig.5). In 2005, wild boars moved away to the open areas (crops and meadows). In 2006, they preferred to move around in the deciduous forest. They selected area where hunting was less intensive.

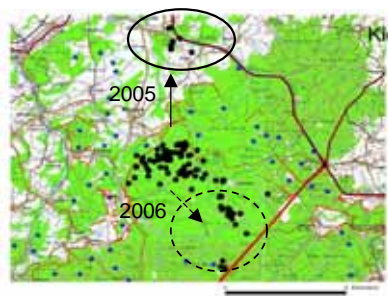


Fig.5 : Locations of a male radiotracked in St Hubert.  
*in full feature* : movements due to hunting in 2005  
*in dotted line* : movements due to hunting in 2006

## Conclusion & prospects

- Home ranges seem to be larger in poorest area, during the hunting season and for males.
- Habitat use is different according to the seasons and to the years (mast or not).
- Tracking of wild boars continues for studying thoroughly their behaviour, with a special emphasis on artificial feeding.