



Monitoring the impact of wild boar (*Sus scrofa* L.) on a Natura 2000 area : Study case in a Belgian military camp

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Introduction

The LIFE program “**rehabilitation of habitats in military camps in Wallonia**” aims to restore several open natural habitats in the military camp of Marche-en-Famenne (2500 ha - Fig. 1).

The program partly focus on the probable impact of the wild boar population on natural communities and, specially, on bulb plant species (*Dactylorhiza fuchsii*, ...) and ground nesting birds (*Caprimulgus europaeus*, *Lullula arborea*, *Crex crex*).

The wild boar population recently reached very high densities (150 hunted ind./1000ha - Fig. 2) probably due to commercial game practices such as selection shoot (shoot of females > 50 kg is not allowed) and high level of artificial feeding.

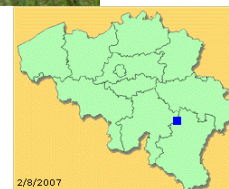


Fig.1: Location of the military camp of Marche-en-Famenne



Photo 1 : Wild boars in military camp of Marche-en-Famenne (©Speybrouck)

Material and methods

The aim of the study is to develop a 5 years-program to quantify the impact of wild boar on endangered species with regard to their density. Progressively, hunting effort will be enhanced and artificial feeding will be reduced and finally stopped.

Population monitoring

An appropriate shooting plan is established yearly and several techniques of density evaluation are applied :

- (1) hunting bag analysis including age, weight, sex data and collection of the genital tracts on the hunted saws ;
- (2) spring census on feeding places ;
- (3) Dispersal, survival rate, CMR (Capture/Marking/Recapture) analysis on tagged piglets.

Impact on biodiversity

The abundance of each vegetation species and the rooting occurrence were systematically sampled on a 150 m square grid each year.

From March to June, 41 artificial nests fitted out with eggs of quail were monitored thanks to IR-controlled cameras and to direct observations on the eggs and tracks, with possible distinction between predators (Suidae, Corvidae, Mustelidae and Canidae).

Results

Population monitoring

- From October till December 2006 (mast), 354 wild boars were sexed, aged and weighed (sex-ratio = 1). We analysed 51 genital tracts. The reproductive rate was 6,17 foetus / sow. Most of the stomach contents (97%) showed forest fruits. The smallest sow sexually mature was 6 months and weighted 26,4 kg (live weight).

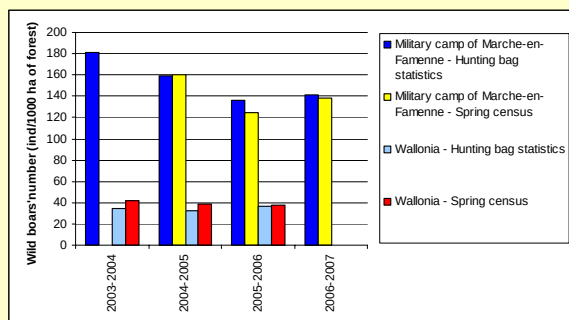


Fig. 2 : Population and bag statistics of the wild boar in the military camp of Marche-en-Famenne and in the whole Wallonia

- In spring 2007, 185 piglets were tagged



Photo 2 : Artificial nest monitored thanks to IR-controlled cameras (©Speybrouck)



Photo 3 : Artificial nest (©Speybrouck)

Photo 4 : Wild boar near an artificial nest

Impact on biodiversity

- Rooting occurrence will be connected with environmental characteristics (vegetation species, presence of water, ...). Evolution through years will be tested.
- Predation occurred on 42,5 % of the artificial nests, of which 47,5 % *a priori* by wild boars. The high level of disturbance, linked with the high densities of wild boars, was probably at the origin of these preliminary results (photos 2, 3 and 4).

Conclusion and prospects

The current situation - with very high densities of wild boars and artificial feeding - was evaluate. The different indices will be monitored over a five years period during which densities will be reduced and artificial feeding progressively stopped.