



SUPPLEMENTAL FEEDING AND REPRODUCTION OF WILD BOAR *SUS SCROFA* IN LUXEMBOURG

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INTRODUCTION

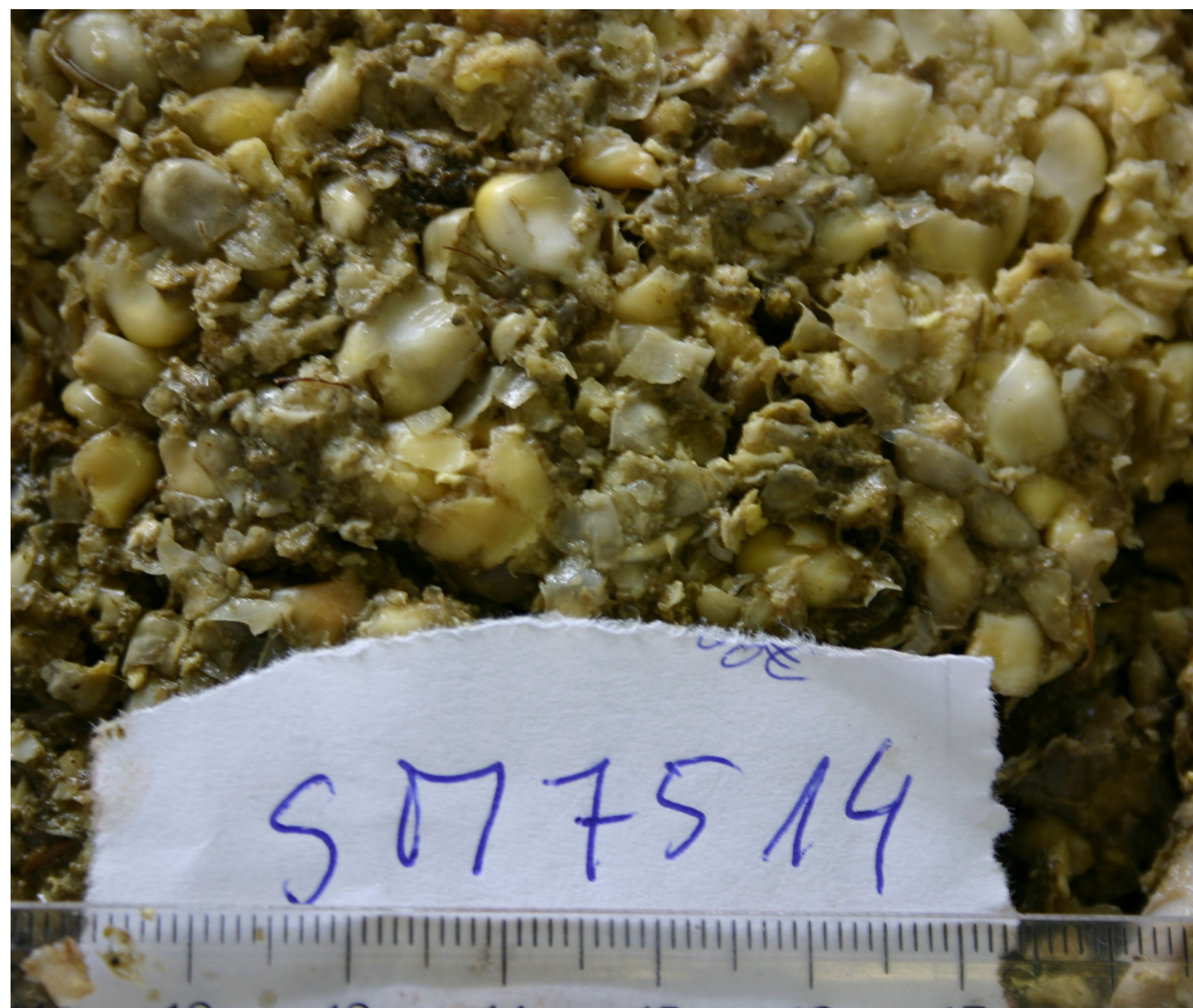
Seen the increase in wild boar population and the damage it causes to agricultural crops, it is important to get more information on the diet and reproductive potential of the species. The intake of supplemented food should be quantified in view of its

potential effect on the observed population increase. By analysis of stomach contents the diet and feeding habits of the species in Luxembourg can be quantified, including the consumption of agricultural crops and of supplemental food provided.

MATERIALS AND METHODS

My study utilises data from carcasses collected over the whole country April 2003-August 2005. The carcasses are measured and weighed in the collection centres. In the lab the **mandibles** are used to estimate the age of the animal, the **stomach**

contents are weighed and spread out in a basin. The percentages by volume of the gross constituents are estimated. **Ovaries and uterus** are analysed for corpora lutea and foetuses showing respectively ovulation and/or pregnancy.



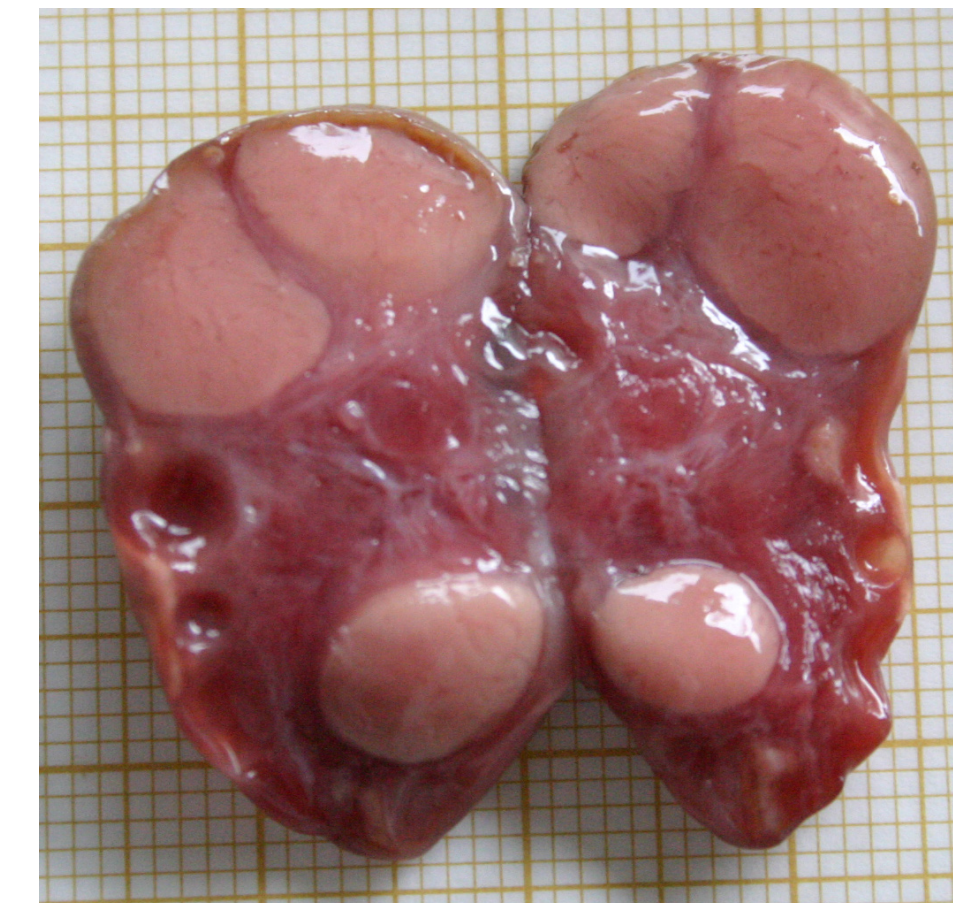
Fresh maize from the field



Maize from supplemental feeding

Maize from crops or from supplemental feeding?

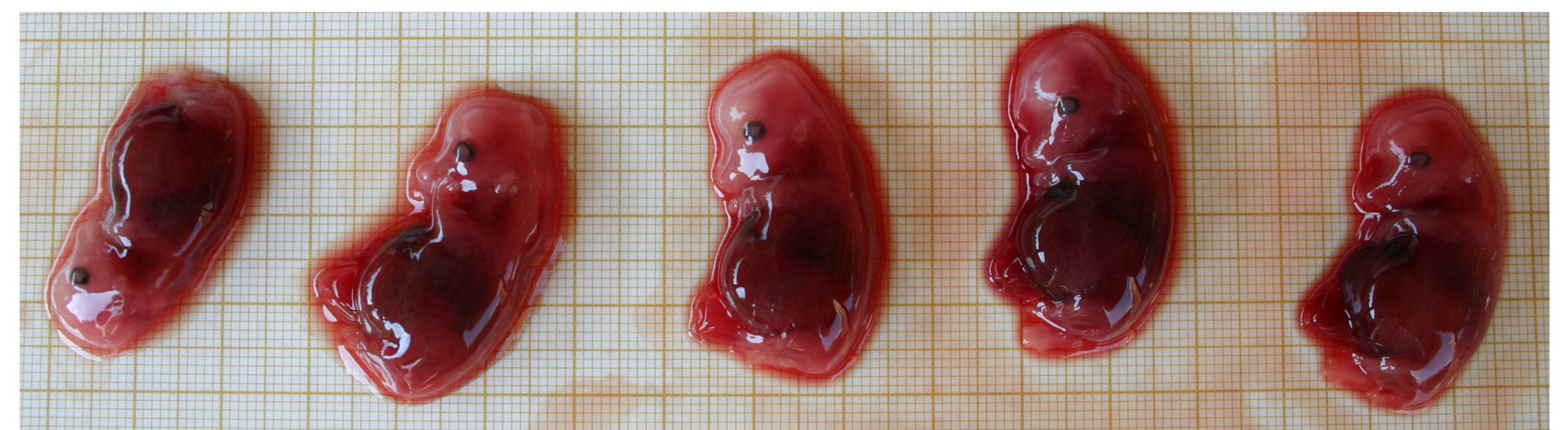
Fresh maize is soft and is squashed by the animal's teeth, whereas maize used for supplemental feeding is dry and hard and will be broken if chewed. This allows to distinguish supplemental feeding and crop. In addition, maize from the field is only available from August to November, supplemental feeding can occur during the whole year.



Transversally opened ovary, showing 3 dissected corpora lutea and follicles.



Foetuses were either measured with a sliding calliper...

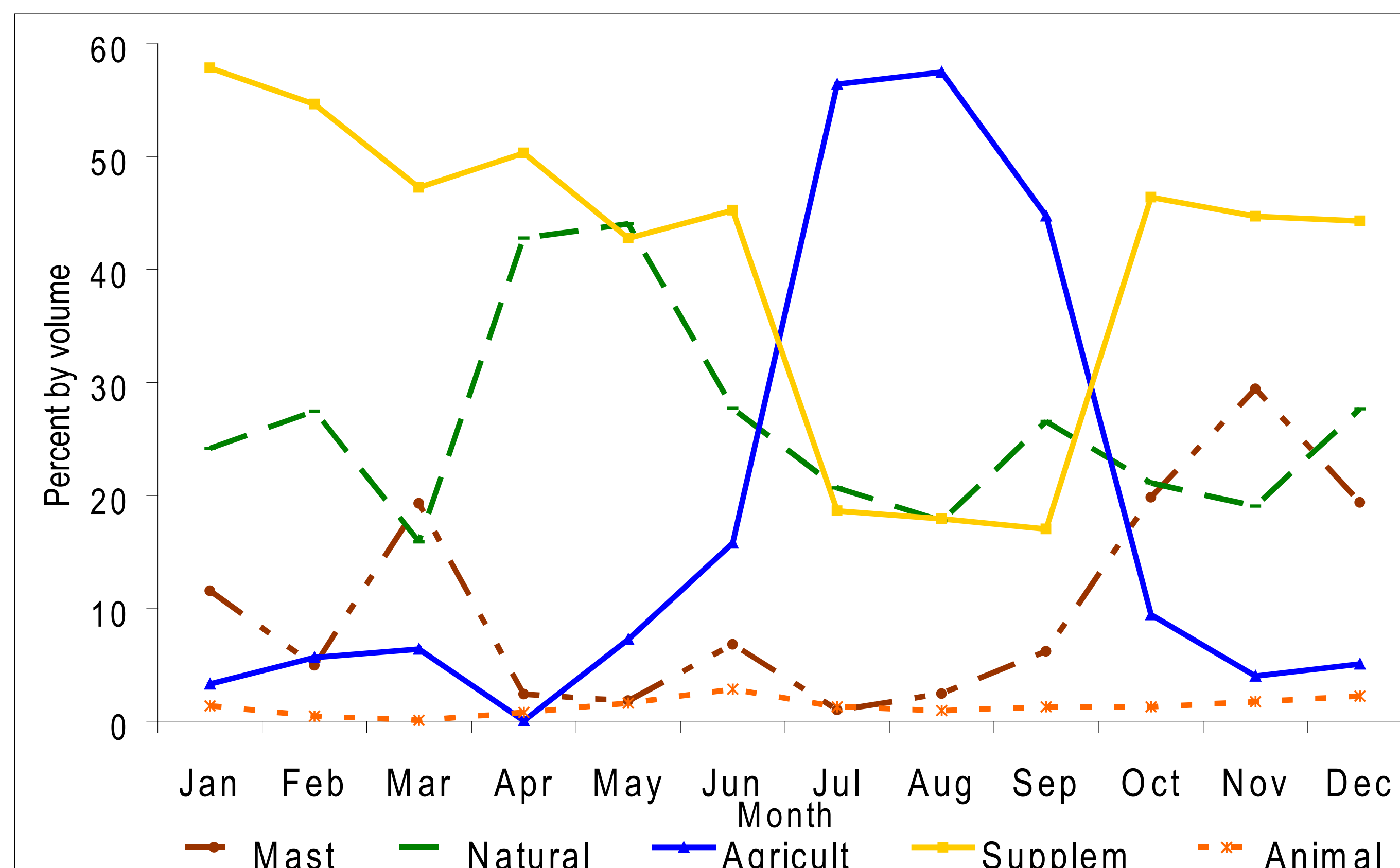


... or on millimetric paper, depending on their size, to estimate their age.

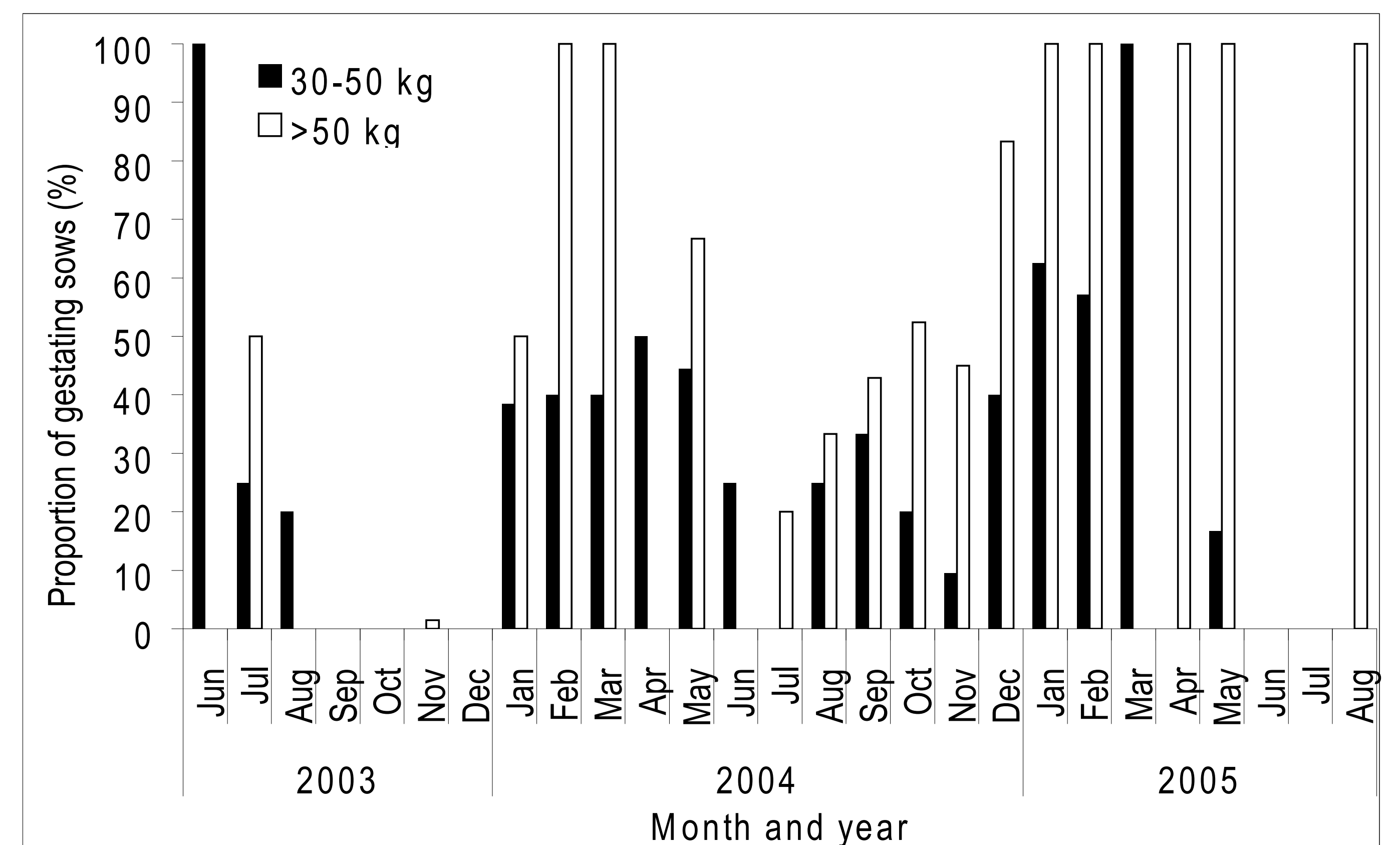
RESULTS

A major part of the diet in Luxembourg consists of supplemental feeding, agricultural crops, seeds (acorn and beechnut) and roots and a small amount of animals. The supplemental food (>40% of total volume) consists mainly of dry maize. The figure below shows that supplemental food was consumed all year round, but in varying proportions.

An average of 5.3 foetuses per pregnant sow seems normal, but seen the high proportion of young animals in the sample (38% of 6-12 months; 40% of >12 months) it is a high value. One sow had reached puberty (i.e., exhibited corpora lutea) at age 4 months, with a further five females ovulating at the age of 6 months. Foetuses were found in sows of 30 kg or more live weight.



Percent stomach contents by volume per month - data from different years of the study were combined within each month; N= 1200 stomachs.



Percentage of gestating sows per month (216 sows of 30-50 kg and 313 sows of >50 kg live weight have been analysed).

DISCUSSION

The quantity of supplemental food found in the diet of wild boar in this study and the results of the analyses of the female reproductive tracts, compared to data available in literature, suggest that feeding could be one of the factors contributing to the increase in population size.

Wild boar also prefer other food types, especially crops and mast, to supplemental food. This raises the question about the effectiveness of dissuasive feeding to decrease crop damage.

Given the widespread occurrence of supplemental feeding of wildlife, not just in the context of hunting but also in urban environments, we suggest that more research into its ecological consequences should be undertaken.

This poster shows some results of the thesis "Effects of supplemental feeding on the body condition and reproductive state of wild boar *Sus scrofa* in Luxembourg" by Sandra Cellina. Please contact the author to obtain a copy:

ACKNOWLEDGMENTS

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All pictures by
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