

DIET COMPOSITION AND PREFERENCES OF THE WILD RABBIT (*ORYCTOLAGUS CUNICULUS* L.) AND ITS IMPORTANCE FOR FACILITATION BY LARGE HERBIVORES

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The European wild rabbit (*Oryctolagus cuniculus* L.) is one of the most important free-living herbivores in Flemish coastal sand dunes. Recently, large herbivores (horses, cattle and sheep) were introduced in several Flemish dune grasslands in order to preserve the high biodiversity in these grasslands. These herbivores do not only influence vegetation, but have probably also an effect on the size and the welfare of the rabbit populations. One hypothesis states that rabbits are facilitated by large grazers, because these large herbivores would enhance the quality of the vegetation: by keeping the vegetation short, the amount of proteins in the plants should be higher, the amount of fibre should be less. The creation of these so-called 'grazing lawns' could be very important for rabbits, because the rabbit is expected to be a very selective herbivore.

Here, we are presenting a project that will be carried out during the coming years, and that will deal with the hypothesis mentioned above.

The first aim of the project is to detect whether facilitation really exists. We will count rabbit pellets in vegetation grazed by large herbivores and in vegetation that is not accessible to large herbivores to compare the frequency of use by rabbits. A second way to detect facilitation will be clipping experiments, in which long, ungrazed vegetation will be made short (simulation of grazing). Again, pellet counts will be used to estimate the use of the different types of vegetation by the rabbits.

A second item in the project is to investigate the differences in quality between grazed and ungrazed vegetation.

Thirdly, the mechanism of diet selection by the rabbit will be studied. The diet of the wild rabbit will be investigated by determination of plant fragments in fresh pellets of wild animals. The diet preferences will be investigated by means of a feeding trial, in which different plant species will be offered to rabbits, under controlled circumstances. Several quality parameters of the plants will be examined, in order to know which parameters are important for the diet selection by the rabbit.

These three items (the existence of facilitation, the differences between grazed and ungrazed vegetation and the mechanism of diet selection by rabbits) should enable us to know whether our hypothesis (rabbits are facilitated by large herbivores because of the qualitative

differences in grazed and ungrazed vegetation, and because of the selectivity of the rabbit) is really true.

Finally, the impact of rabbits on vegetation is studied, because in the context of facilitation, it can be important to know whether the rabbit is able to create itself (without the help of large herbivores) a vegetation structure and vegetation composition that is suitable for his needs and survival.