

Restoring the habitat of Corn Crane (*Crex crex*) on arable land: the challenge to improve the soil nutrient status and hydrological conditions

Maud Raman, An De Schrijver & Gerald Louette

A full implementation of the Habitats Directive implies that all enlisted habitats and species attain a favourable conservation status all over the European territory. In Northern Belgium an expansion of natural landscapes and forests with 25 000 ha is necessary. To fulfill this target a conversion of nutrient enriched agricultural land is often needed. The restoration of habitats on former agricultural land has shown variable success. One of the most important bottlenecks for ecosystem restoration on former agricultural land is the large stock of nutrients, in particular nitrogen and phosphorus. Human efforts to restore nutrient-poor conditions likely become an increasingly important aspect of biodiversity conservation.

Corn Crakes are strongly associated with agricultural grassland managed for the production of hay. Suitable habitats include moist, unfertilized grassland and regularly cut meadows in areas of low-intensity agriculture where vegetation grows tall in summer. To restore suitable habitat it is necessary to improve the soil nutrient status and hydrological conditions.

In this talk we give insight in the agricultural parcel's potential for restoration of semi-natural grasslands under iron-rich conditions. We discuss measures that can be undertaken to restore the soil nutrient status and explain possible changes in soil chemistry after rewetting. We also briefly give some options for enlarging differences in vegetation structure.