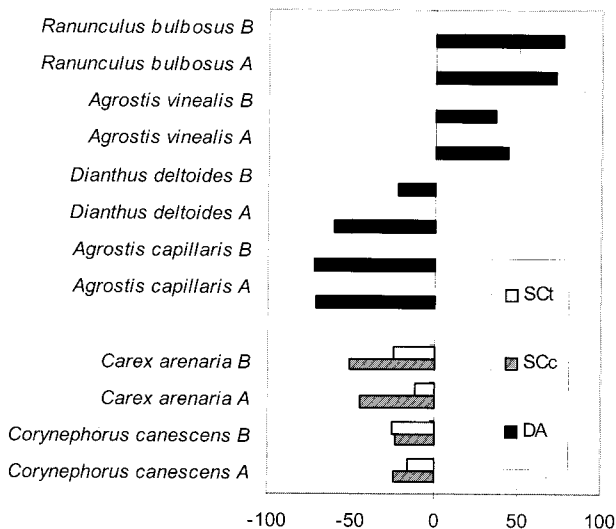


Influences of grazing on flower phenology and seed production with special reference to the compensation potential of the seed bank

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Grazed and ungrazed stands of *Spergulo-Corynephorum typicum* (SCT), *S.-C. cladoniotosum* (SCc) and *Diantho-Armerietum* (DA) were compared. The SCT is poor in palatable plant species; only 12-26 % of the inflorescences/infructescences of *Carex arenaria* and *Corynephorus canescens* are grazed (Figure 1). The SCc is richer (e.g. *C. arenaria*); 45 % of inflorescences and 51 % of infructescences of *C. arenaria* are grazed. An analysis of the seed bank shows that *C. canescens* and *C. arenaria* are present (e.g. up to 213 diaspores of *C. arenaria* were found per m²). The SC can partly regenerate itself from the diaspore potential of the seed bank if there are gaps caused by cattle trampling. In contrast the DA is quite intensively grazed, entailing a reduction of flowers and fruits of certain plant species (*Agrostis capillaris*: reduction of inflorescences 71 %, that of infructescences 72 %, *Dianthus deltooides*: number of flowers in the grazed sites 61 % lower, that of fruits 22 %). Two species show much higher flower and fruit numbers in the grazed sites (*Agrostis vinealis*, *Ranunculus bulbosus*). The analysis of the seed bank has shown, that *A. capillaris* and *D. deltooides* are present. Faeces microsites are important elements for patch dynamic systems in the DA. At such sites, which make up about one third of the investigated plots, many flowers and fruits develop.

Figure 1: Percentages of inflorescences (A)/ infructescences (B) under grazing of SCT, SCc and DA [1].



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[1] Kratochwil, A, Fock, S, Remy, D, Schwabe, A (submitted) Responses of vegetation structure under grazing impact: flower and fruit phenology, seed production.