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nesses of the approaches, the results achieved and the costs and benefits. We conclude that landscape-level restoration offers exciting new opportunities to restore biodiversity and landscape connectivity in Europe’s dry grasslands. There are now drivers for large-scale restoration written into the 2020 targets of the Convention on Biological Diversity and the European Biodiversity Strategy. However, a more integrated approach to large-scale ecological restoration is needed for the development of policy tools to achieve the greatest benefits from restoration at the landscape scale.

O 125

Native root-hemiparasitic plants can suppress expansive grass Calamagrostis epigejos: experimental evidence from different habitats using Rhinanthus alectorolophus

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Calamagrostis epigejos is a clonal grass with underground rhizomes. Due to its highly conservative resource use strategy and efficient nutrient resorption, it produces a thick layer of slowly decomposing litter, which prevents establishment of other species. Its recent expansion to both (semi)natural and restored grasslands is one of the main threats to plant diversity in Central Europe. Grazing and intense mowing are recommended to suppress its dominance. Grazing is difficult due to low fodder quality of C. epigejos and avoidance by livestock. Intense mowing (2–3 times a year) can have a negative impact also on co-occurring plants of high conservation value.

In a pilot experiment, we had demonstrated that C. epigejos is a very good host of root-hemiparasitic Rhinanthus species. Therefore, we designed a series of experiments aiming to test whether Rhinanthus alectorolophus is able to suppress C. epigejos dominance. The randomized block experiments were established in three different habitats.

R. alectorolophus significantly decreased biomass production and cover of C. epigejos, which suffered up to drastic damage at some plots. The hemiparasites had significantly more negative effect on C. epigejos than mowing.

Native root-hemiparasitic species of genus Rhinanthus seem to be a suitable tool of biological control of C. epigejos. Further research should aim on long-term effect of Rhinanthus and test its practical applicability in the landscape context.