Commercial forestry, often slated as monoculture, may have an important role to play in maintaining biodiversity. This beneficial effect occurs in nearby fields grazed by livestock, rather than the forest itself. This finding could be important for the conservation of grassland species, which have declined dramatically over the past 100 years as agriculture has intensified in Europe.

Most conservation research has focused on ‘hot spots’ containing high levels of biodiversity and on pristine habitats, whereas few such habitats remain in western Europe. The survival of many plant and animal species is, therefore, crucially dependent on their ability to survive in landscapes dominated by human activity.

Studying former arable fields (fields previously used for growing crops) in Sweden, researchers from Stockholm University discovered that, surprisingly, it is not the size or shape of the field that affects the number of different plant species within it, but the landscape surrounding the field. As many as 35 per cent more plant species were found in fields surrounded by commercial forestry than in land surrounded by open agricultural fields.

Despite the fact that huge numbers of the same species of tree are planted in commercial forests, fields in a forested landscape were found to harbour a wide variety of plant species and 91 per cent more grassland species than fields in an open landscape. In Scandinavian countries in particular, commercial forestry is widespread and commercially important with many farms adjacent to forested land.

The scientists concluded that many species survive in the borders between the forest and farmland, and are only able to disperse seeds locally. These plant species are most likely from remnant grassland communities that have survived in commercial forestry. Open, rural farmland has previously been at the centre of conservation measures, and farmland surrounded by commercial forestry has been somewhat overlooked. These new findings show that this pasture, particularly in countries where natural grassland is scarce, could be an important source of biodiversity.

They suggest that such farmland could be managed simply and cheaply to further increase biodiversity, using practices including seed sowing and mowing grass. Since grazed farmland is much more abundant than natural grassland, putting measures in place to protect, conserve and actively increase biodiversity in grazing land could be a simple way to achieve widespread results, particularly in Northern Europe.


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