

The International Union of Railways (UIC) is the worldwide professional association representing the railway sector and promoting rail transport. UIC leads an innovative and dynamic sector, helping our members find opportunities and build success. The purpose of UIC's Ecological Effects of Railways on Wildlife (rEvERsE) project is to understand railway's role in the loss and gain of biodiversity and its habitats in Europe. It will seek to set out how railways can manage land in an ecologically sensitive way, providing solutions and best practice examples.



UIC is seeking solutions and best practice to manage rail lineside in a way that can help **halt and reverse the loss of biodiversity.**

This poster provides information about Theme 1:

**“Where companies have had an active role in the development of national strategies for biodiversity.”**

## SWEDEN

The Assessing Biodiversity in Railway Dry Grassland Patches

### THE SOLUTION

*In Sweden there are about 200,000 ha managed grasslands along linear infrastructure such as power lines, national road network, airports and railways. We know that over 2,000 species of insects and vascular plants have their habitat in a railway environment. Among these species, about 100 are included in the national red list. In this work we present a method to assess, categorize and handle railway environments on a national basis. The method consists of three steps:*

- remote assessment
- field visits
- biodiversity action plans.

*The remote orthophoto assessment selects railway environments to be visited in field based on a set of parameters such as visible structures and soil characteristics. The next step, field visits,*

*focuses on recording habitats for vascular plants and insects and includes a survey of plant species. The status of 12 pre-defined habitat structures is targeted and assessed in the field. These pre-defined habitats are each represented by a unique combination of flora and fauna, containing one or more protected species. The Swedish 1,400 railway stations have been surveyed for biodiversity potential. The results include that 230 railway stations contain grassland patches with high biodiversity of plants and animals. In total, more than 2,000 species of insects and vascular plants were found to have their habitat in these dry grasslands. About 100 of these are nationally red-listed species, mainly of bees, beetles, butterflies and vascular plants. The survey has also included a method identifying and ranking sites based on nature conservation values. High-ranked railway grasslands are subject to specific biodiversity action plans.*

#### Outcomes

*The field visits conclude an overall classification (1-5) based on the biodiversity parameters. The class 4 (low capacity) and 5 (lack capacity) will not be considered for action plans. The railway environments classified to 1 (very high conservation values), 2 (high conservation values) and 3 (moderate conservation value) are subject to a specific action plan. The purpose of these action plans is to secure and develop the biodiversity along the railway environments. So far, these action plans are not connected to other conservation measures, e.g. green infrastructure strategies. Currently, all Swedish 1,400 railway stations have been surveyed. The results show that 230 railway stations include dry grasslands that are high-ranked (1, 2 or 3). Action plans have been produced for a set of railway stations. In 2021 we anticipate finalizing the action plans for the remaining high-ranked stations. We hope that this methodology will trigger a valuation and ranking of the natural assets of railway environments. We further believe that this national survey will push biodiversity issues to be part of the regular management of railways.*

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