

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 2:
“Proactive management of habitat for rare or protected species”

UNITED KINGDOM

Despite over 50 years of effort to halt its decline, the Large Blue butterfly was pronounced extinct in Britain in 1979. Today the butterfly can be found on 33 sites in the south-west of England. This is a tribute to a large-scale conservation programme underpinned by innovative science and implemented by a determined and broad partnership

THE SOLUTION

*In the 1970s, the Large Blue Butterfly became extinct in Britain and was the focus of a reintroduction programme, made more complex because of the symbiotic relationship the butterfly has with a grassland ant (*Myrmica sabuleti*). In the 1990s, a population was discovered to have spread onto a railway embankment owned by Network Rail. A land slide on this site required major engineering work to be undertaken. A plan was devised by the company and the UK Centre for Ecology & Hydrology (UKCEH) to translocate the Large Blue Butterfly colony and its habitat to two new sites on the lineside. The design of one of the sites included slopes with different aspects and soil depths providing a range of micro-habitats for the ant species to compensate for the effects of climate change in the future. One of the Network Rail sites now boasts one of the biggest populations of Large Blues in northern Europe. For this work Network Rail was awarded the prestigious Marsh Award for conservation.*



Outcomes

As in the UK, the partnership is keen to replicate the landscape-scale metapopulations of the butterfly which occupy parts of Somerset. Work is now underway in the Cotswolds, Dartmoor, South Devon, as well as the North Atlantic coasts of Devon and Cornwall. The success of this project led to a major, European-funded research programme, MacMan. It used the approach pioneered by the Large Blue project to understand and then conserve four other species of Large Blue, which exist outside of Britain, across Europe.

Since CEH began work on the project in the 1970s, it has monitored the effect that managing a site for Large Blue habitat has had on other species. It quickly became apparent that other rare species of plants, insects and birds had suffered from the same changes in agricultural practices, and also benefited from scrub management and grazing. Several species listed as endangered have increased dramatically on Large Blue sites, contrary to their national trends. Conserving Large Blues has become a paradigm for insect community conservation.

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