

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 5:
“Robust, cost-effective and safe methods for collecting data (to establish a baseline)”

UNITED KINGDOM

Network Rail in the UK are working in collaboration with the UK Centre for Ecology & Hydrology to develop a fully autonomous biodiversity monitoring station for deployment on the lineside.

THE SOLUTION

As shown in figure 1, the station is solar powered and comprises acoustic sensors for birds, bats and crickets. It also operates a light trap to monitor moths and camera traps for small mammals and large mammals. The data is automatically analysed using image and sound recognition algorithms. The station also collects detailed weather data which are of interest to both ecologists and rail infrastructure managers. The data is continuously transmitted to the data server using the 4G mobile phone network.



(Figure 1: Autonomous biodiversity monitoring station on the lineside (left), Small mammal camera trap (right), © Network Rail)

Keywords: Collision, Mitigation



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