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.

ÖBB

UIC

ECOLOGICAL EFFECTS OF RAILWAYS ON WILDLIFE
REVERSE

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 10:
"Examples of companies undertaking or commissioning biodiversity research"

AUSTRIA

Twelve tunnels along the Tauernbahn railway line in Carinthia, Austria were abandoned due to the relocation of the main tracks.

SOLUTION

As part of the ÖBB initiative "Green Points", a project was launched to investigate the function of the tunnels as habitat for bats. Furthermore, measures for improving the surrounding habitat quality for bats were planned and put into action.

To obtain information about temperature and humidity conditions, data loggers were placed in the tunnels. Because different bat species have different temperature requirements for their hibernation, a detailed knowledge of temperature range and fluctuations is of great importance. The existing use of the tunnels by hibernating bats was checked visually during the winter months. During summer, automated recording devices for recording bat calls were used, as well as mist netting in front of the tunnels.

So far, six bat species have been recorded in the tunnels:

- *Lesser horseshoe bat,*
- *Natterers' bat,*
- *Mouse-eared bat,*
- *Common pipistrelle,*
- *Barbastelle, and*
- *a species of the genus Plecotus.*

Based on these first results, we initiated work to ensure that:

- *the tunnel entrances enabled access for bats and supported the microclimatic conditions aimed for in the different tunnels;*
- *human disturbances in the tunnels were minimised; and*
- *hollow concrete blocks were placed in the tunnels to increase the number of available crevices for bats.*

The effectiveness of these measures and the population trends of the bats will be monitored in the coming years.

Outcomes

The results will provide important guidelines for the improvement of abandoned tunnels as habitat for bats.

Keywords: Tunnel, habitat, bats

ÖBB CONTACT: Thomas Schuh

landuse@uic.org