



Conférence Européenne
des Directeurs des Routes
Conference of European
Directors of Roads

SafeBatPaths

Fumbling in the dark - Effectiveness of bat mitigation measures on roads

Research project funded under the CEDR Transnational Road Research Programme

CEDR Call 2013: Roads and Wildlife - Cost-efficient Mitigation Strategies

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Details

Acronym:	SafeBatPaths
Start:	September 2014
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Budget:	EUR€198,950
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Project Summary:

Roads have the potential to impact on bat populations negatively by acting as barriers, reducing habitat suitability near roads, and inducing increased mortality rates due to collisions with road traffic. Especially low flying bats are at risk for being killed when crossing roads. The requirement for mitigation strategies for bats is therefore essential when upgrading or/and expanding infrastructures, particularly as all bat species are protected by the European Habitats Directive.

A wide range of measures has been employed by the European road authorities to mitigate or compensate for the negative impacts of roads on bat populations, but only a few of the measures that are constructed have been adequately tested. It is therefore imperative for road authorities, nature agencies and infrastructure developers to identify appropriately efficient and cost-effective mitigation measures for bats, especially due to the cost that are associated with constructing and maintaining such mitigation measures.

The project addresses a series of issues concerning the mitigation and compensation measures constructed for bats on roads:

- Identification of mitigating measures employed at roads across Europe where bats are the main target or one of the target species.
- Identification of maintenance procedures and cost for the mitigation measures for bats and risk factors associated with the maintenance procedures.
- Evaluation of the effectiveness of mitigation measures for bats (bat fauna bridges, bat under-passes, hop-overs, gantries and other bat passes).
- Evaluation of the effectiveness of multi-species fauna passages.
- Evaluation of the effectiveness of multi-functions passages (e.g. road bridges with vegetation on one side).
- Evaluation of the effectiveness of other road technical structures (gantries, pedestrian or road bridges, viaduct and tunnel) and of minor adaptations (e.g. dimensions and positioning of lighting) which might improve the structures functionality as passages for bats.
- Identification and evaluation of the effectiveness of measures to reduce fragmentation effects and compensate for habitat degradation in relation to road infrastructures, e.g. bat boxes.
- An experimental field study to examine the effectiveness of hop-over sections at roads.
- Identification of important themes for further research on bats and roads.

The described research will result in a critical review of existing literature and evaluation of the effectiveness of mitigation measures employed on road infrastructures in Europe. Based on the evaluation a state of the art guideline for bat mitigations in Europe for end-users (national road authorities (NRAs), nature agencies, and infrastructure developers) is being prepared.