

Restoring permeability of roads for wildlife: wildlife warning systems in practice

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Between 2003 and 2005, the Forest Research Institute Baden-Württemberg (FVA) played a decisive role in planning and implementing an electronic animal detecting system, a pilot project in the Federal State of Baden-Württemberg in Southern Germany. The system was intended to reduce animal vehicle collisions which doubled up to over 25 after the expansion of the national road B292.

The respective road section was fenced over a length of 3,5km with two 60m gaps allowing the animals to cross the road. At each gap an animal detection system was installed. These systems use sensors to detect large animals (e.g. deer, wild boar and fox) that approach the gaps during dawn and night and try to cross the road. Once an animal has been detected, LED-warning signs are activated for two minutes that encourage drivers to become more alert, reduce the driving speed to the mandatory 70 or 50km/h.

After two years, animal-vehicle collisions could be reduced by over 80% corresponding to a prevention of tangible damage in the amount of 110.000€ Within two years, 5036 road-crossings (individual animals or groups) were recorded at the two gaps whereof 13 ended up in collisions. In average, this corresponds to one animal-vehicle collision per 387 road-crossings.

The lessons learned during this project as well the potential fields of application of this system to restore permeability of roads for wildlife will be emphasized.