



Koordinationsstelle für Amphibien- und Reptilienschutz in der Schweiz (karch)

## Amphibian – railway conflicts in Switzerland



# Amphibian mortality on roads: a long known problem



# Conflicts between amphibian migration and railways: a newly emerging field



- **Mortality**
- **Barrier effect**

# Amphibian - railway conflicts: Current Situation in Switzerland

**We are greatly lacking in reported observations!**

**Cooperation between Federal offices of environment (BAFU) and traffic (BAV) and karch (until 2022)**

- GIS Analysis to define «potential conflict sites» along railway lines → 726 sites identified
- Compilation of effective protective measures
- Development of a standard methodology to evaluate these sites in the field

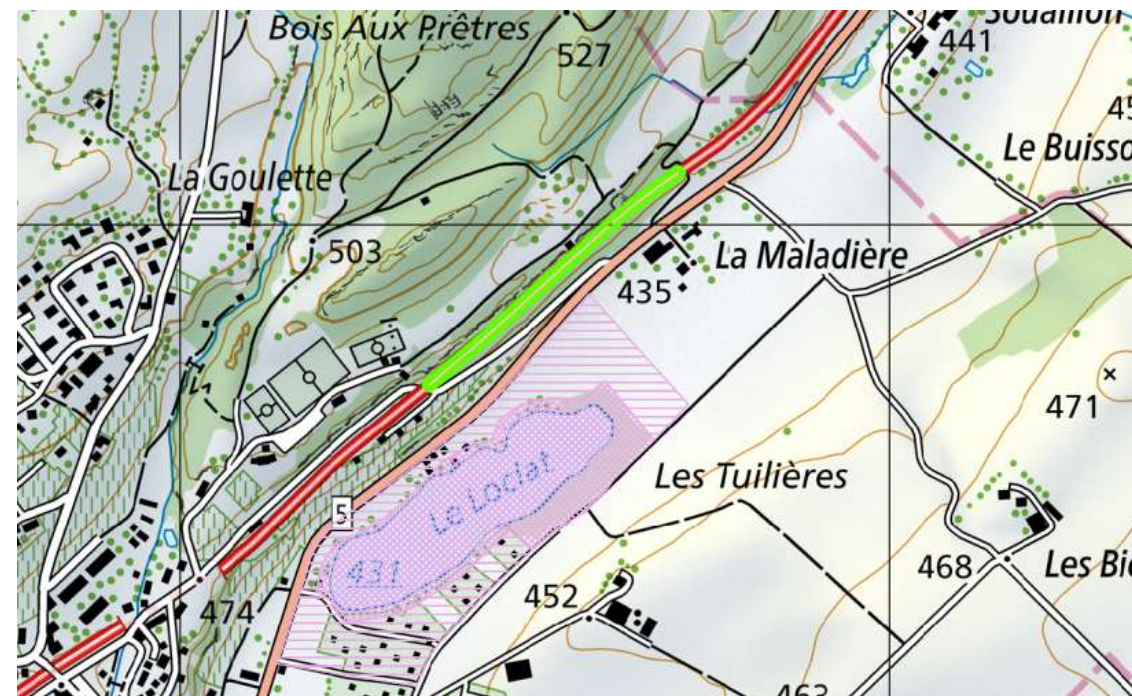
[Final report GIS Analysis + protective measures](#)  
[Final report FerFrog standard methodology](#)  
[Field manual FerFrog standard methodology](#)



# Amphibian - railway conflicts: Current situation in Switzerland

**2023: Federal offices of environment (BAFU) and traffic (BAV) task the Swiss railroad companies to:**

- **evaluate** their «potential conflict sites» in the field (Fer Frog methodology)
- Implement **protective measures** where necessary



# Amphibian - railway conflicts: Protective measures

## Measures on railway tracks

- Amphibian deflectors and ballast trenches
- [Surface-level tunnels below tracks: Tests on pilot site not conclusive]

## Measures on railway embankment

- Gravel or concrete ramps to render stabilized embankments accessible

[List of measures](#)



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Mellikon - Cam1

wls.ch/karch

## Railway lines as terrestrial habitat?

Increasing reports of amphibians using railway embankments and ballast as terrestrial habitat and even overwintering sites.

→ protective measures must take this into account





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**Thank you  
for your  
attention!**