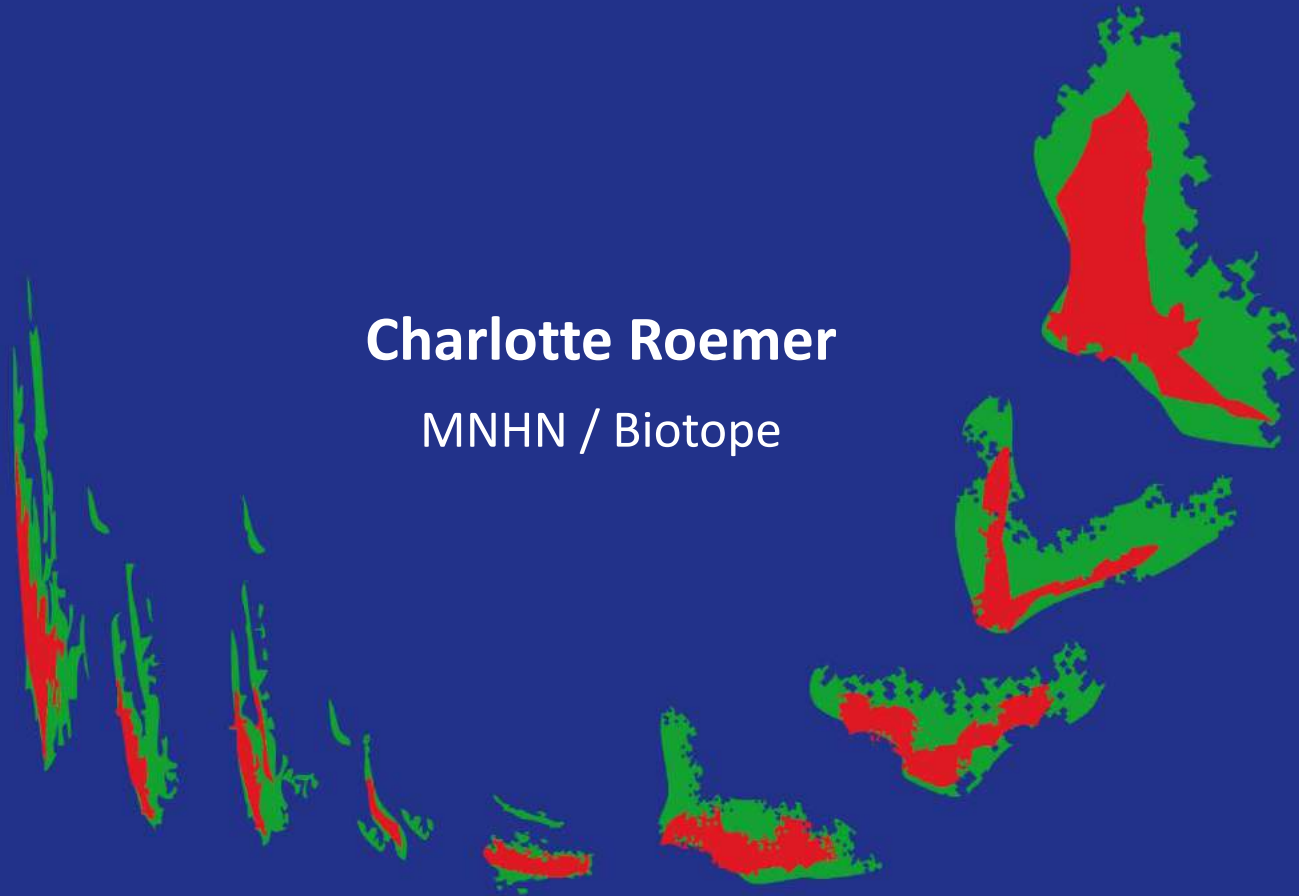


Methods for the assessment of collision risks: underpasses at roads or railways



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MNHN / Biotope



Context

Construction of a high-speed railway in Southern France (Montpellier):
crossing potential bat commuting routes



Site 1



Site 2

+ 2 other study sites

Goal of the study

- Test the effect of hedgerow height
 - on the proportion of bats flying under the underpass
 - or flying above the railway

But...

- Only 4 study sites (2 small hedges + 2 tall hedges)
- Different gaps between railway and hedgerow
- 3 nights of survey (1 small hedge + 1 tall hedge) X 2
- Moonlight very different on both surveys

So this presentation is only about the method

Method

3D flight path tracking



1D flight path tracking:
direction of crossings

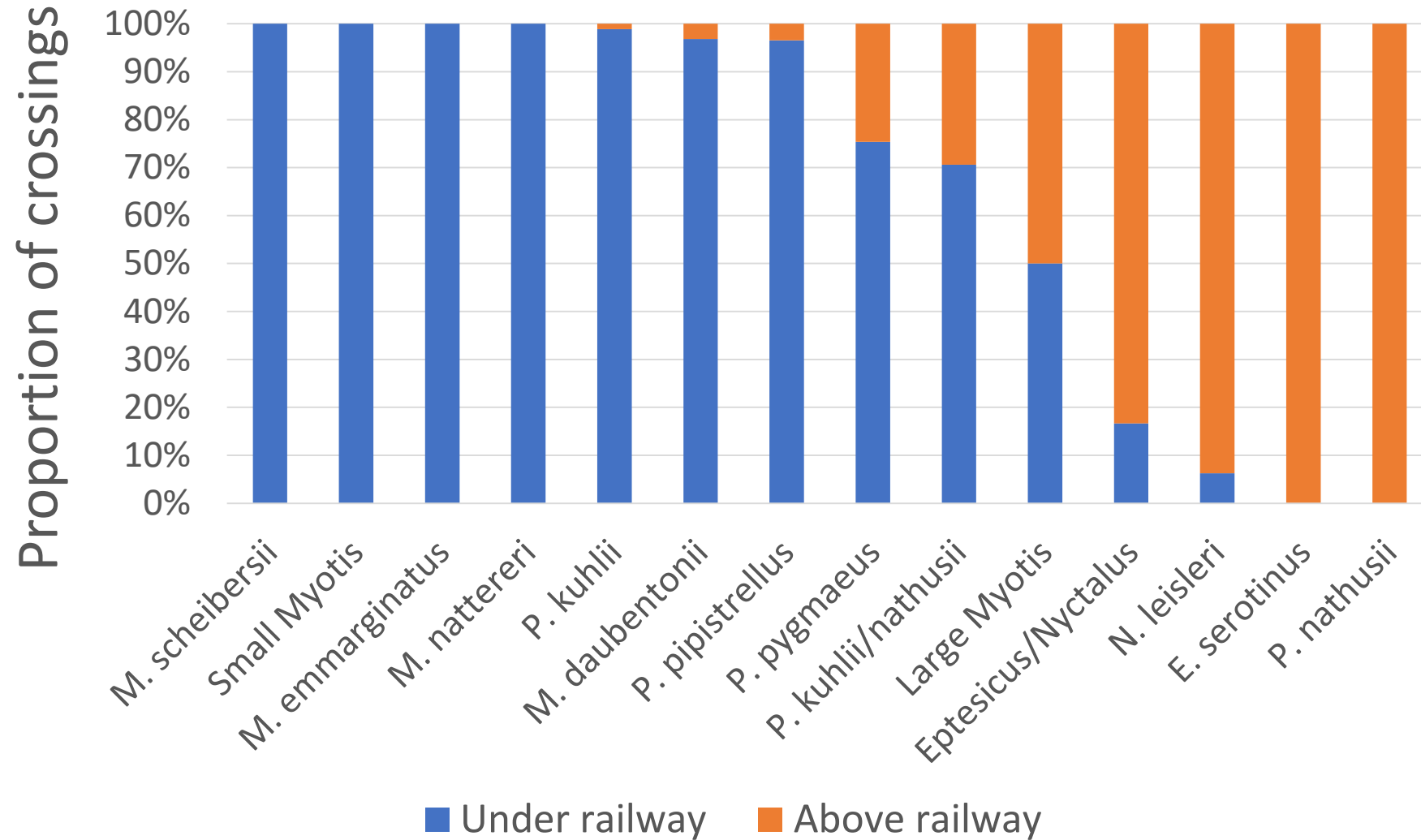


1

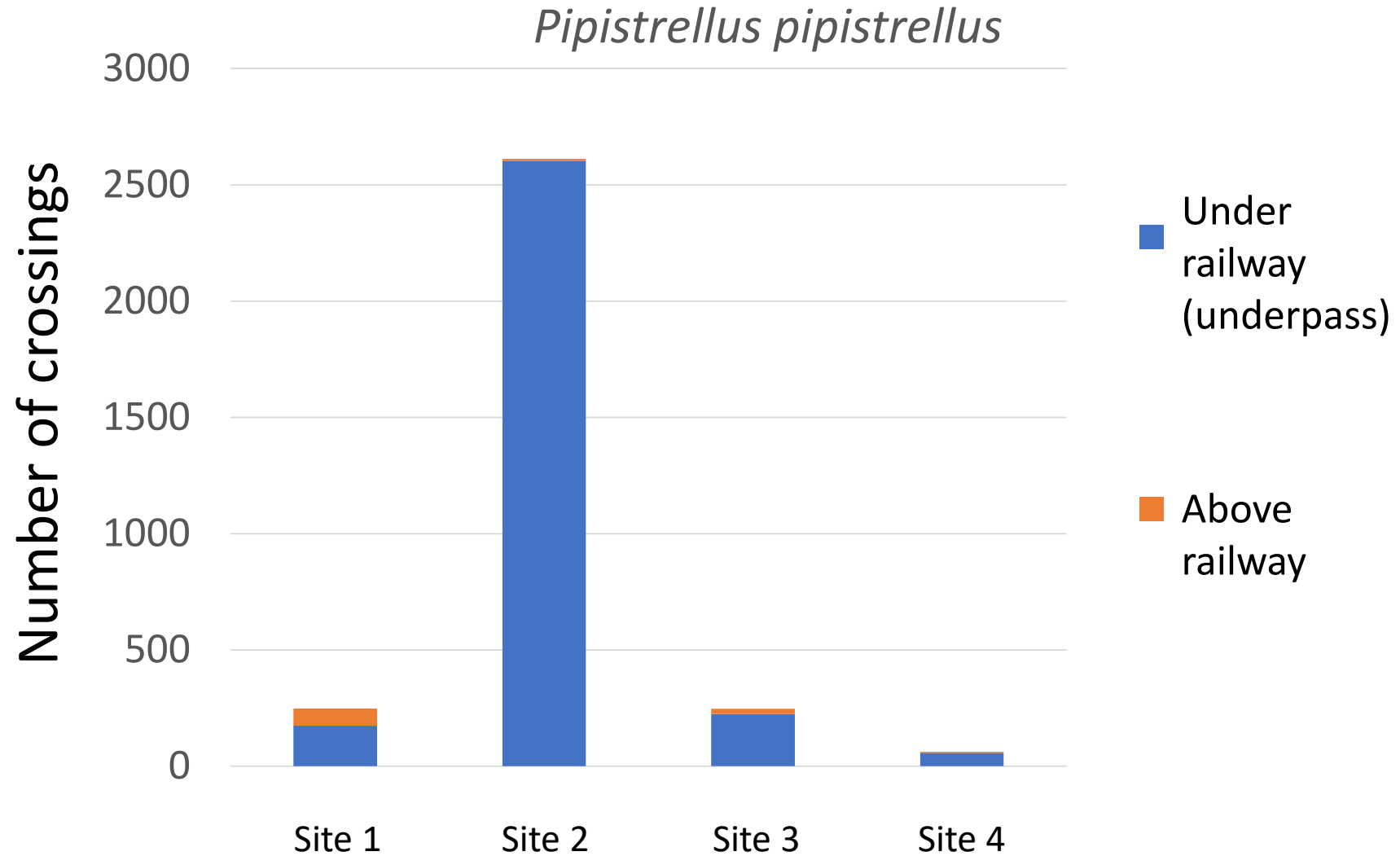


To assess road/railway collision risks,
2 settings are installed after construction but before operation

Examples of results

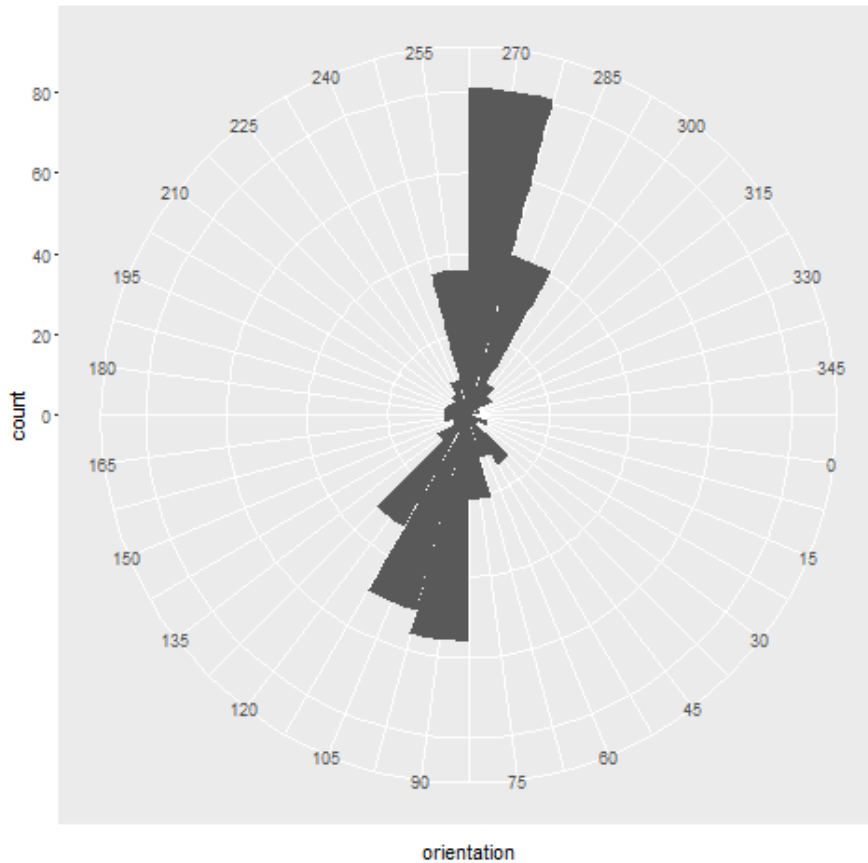
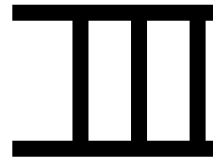


Examples of results

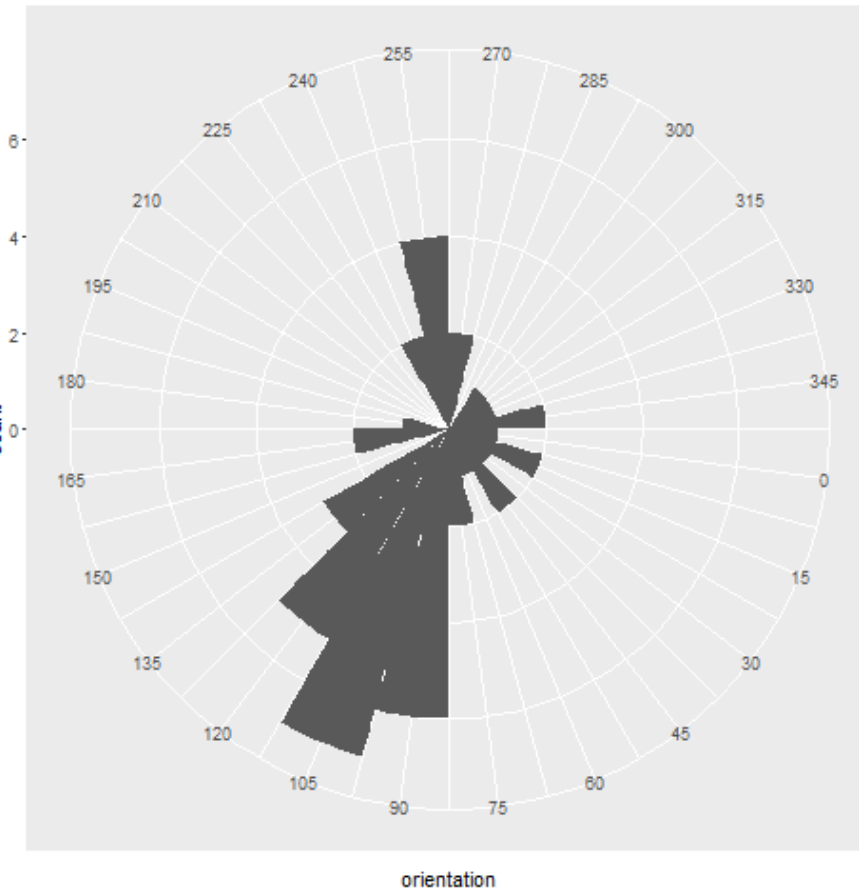


Examples of results

Orientation of flight trajectories viewed from top = crossings above the railway
(all species)



Site 1



Site 2







