

# SYMPOSIUM

## USING TECHNOLOGY TO REDUCE WILDLIFE-VEHICLE COLLISIONS:

*Identifying future directions and opportunities for research trials.*

TUESDAY 21 MAY 2024

Aerial UTS Function Centre,  
Bldg 10/Level 7, 235 Jones St, Ultimo, NSW  
and Online via Zoom



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Presentation materials  
[| Accessible here](#)

## ABSTRACT

### Wildlife-Vehicle Collisions: Impacts on Conservation, Social and Economic Dimensions

The mortality of wildlife resulting from collisions with vehicles is considered one of the main negative effects of roads on numerous species. Estimates suggest that up to 340 million birds are killed on roads in the USA, with 194 million birds and 29 million mammals affected in Europe, and 17 million birds and mammals in Latin America. Several studies have highlighted sex- and age-related biases, which are likely to have critical implications for population dynamics. Additionally, research indicates that the increased mortality can elevate the risk of local extinction by reducing the effective population size and gene flow of already rare and threatened species, which poses further challenges to wildlife conservation. Collisions involving large mammals and vehicles can result in significant socio-economic consequences. In the United States, these collisions cause approximately 200 human fatalities and 29,000 injuries annually, with associated costs reaching up to US\$ 12 billion. Similarly, in Europe, an estimated 300 human fatalities and 30,000 injuries occur each year, with associated costs exceeding one billion dollars. In this presentation, I will discuss the latest findings regarding the impacts on wildlife conservation and socio-economic dimensions, as well as the challenges surrounding the implementation of more effective mitigation measures.

## BIOGRAPHY

Clara Grilo is a Principal Investigator at CIBIO | InBIO | BIOPOLIS at the University of Lisbon in Portugal. She holds positions as an Invited Assistant Professor at FCUL and FCUP in Portugal, as well as at the Federal University of Lavras in Brazil. She obtained her PhD in Conservation Biology from the University of Lisbon in 2009. Her research primarily focus on the impacts of road networks on birds and mammals, including behaviour, relative abundance, mortality, genetic structure, and extinction risk. Over the years, she has collaborated with research teams in Road Ecology across USA, Spain, Australia, Brazil, and Czech Republic. Presently, her focus lies in bridging the gap between science and practice in road ecology through the development of user-friendly tools, capacity building through training, and analysis of mitigation scenarios.