

Linear infrastructure an insidious agent of biodiversity loss

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In our quest for biodiversity conservation there have always been issues we underestimate or we do not know enough about, which contribute to biodiversity loss disproportionately to the importance we give them. Whether wildlife is getting closer to us or we are getting closer to wildlife the result is the same i.e. *human nature conflict*.

Linear infrastructure is among the agents which exacerbate this conflict. Roads in particular, despite their importance for economic development, continue to expand rapidly worldwide, leaving but few areas intact. What does this mean for a large Mediterranean island with limited space, high biodiversity and an expanding road network? Cyprus is the EU country with the highest land take and sealed surfaces area and a road density as high as large European countries. Despite the dramatic increase of the road network over the past decades, it is still expanding with new highways planned.

Roads on the island cut through Natura 2000 sites, which have similar road density to non protected areas, roadless areas are limited, protected habitats are highly fragmented, while no proper evaluation of the impacts of the road network on wild fauna has been conducted to date. In addition, data on Wildlife Vehicle Collisions (WVC) remain fragmented, collected in an ad hoc manner with absence of centralized sharing and analysis. As a result road effects on biodiversity are understudied which in turns hinders decision-making, including consistent assessment and planning.

The paper provides an overview of the work carried out in Cyprus since 2014 to evaluate road impacts on protected areas and biodiversity. In addition it reports on the first concerted effort to set up a system for roadkills' monitoring as a means to improve our knowledge on road ecology, raise public awareness on the effects of roads and develop recommendations for mitigation measures.