

Understanding the impact of Transportation Infrastructure on Wildlife in Latin America: guidance for sustainable design and planning

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Latin America is one of the most biologically diverse regions globally. Biodiversity in Latin America is currently at risk due to habitat loss, land conversion for agriculture, and transport infrastructure expansion. Transport infrastructure (TI) can have significant impacts on individuals, wildlife populations, communities, and landscapes. These impacts can begin during construction and may persist as long as the TI remains operational, or until effective mitigation measures are implemented. In particular, roads can cause habitat loss and degradation, acting as barriers or filters to movement and causing mortality. Most studies in Latin America have documented an increase in deforestation rates illegal logging, and the establishment of human settlements due to the expanded human access. More than 680 species are exposed to mortality from traffic being 83 species classified as threatened by IUCN. The species that seem more exposed to roads are jaguar, giant anteater and maned wolf. Spatial predictions revealed higher rates on roads across Central America, northern Andean regions, eastern Brazil, Uruguay, central and eastern Argentina and southern Chile. Moreover, movement corridors does not coincide with roadkill incidence for felids. In this presentation, we discuss the latest findings on transport infrastructure & ecology regarding impacts and mitigation to guide stakeholders such as public administration, consultants, and decision- and policy-makers for transport design and mitigation.