

Road mortality of a tropical mammal fauna in Australia's wet-dry tropics

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Linear transport infrastructure (roads, railways, pipelines) is a major cause of fragmentation of landscapes. It can create barriers to animal movement and be a source of mortality of wildlife as a result of collisions with vehicles. The prevalence of wildlife-vehicle collisions has been studied widely across the globe in recent years, however, it remains relatively understudied in northern Australia. Road mortality of mammals was assessed on three types of road (primary highway, secondary highway, secondary road) during three seasonally-defined sampling periods in the Daly Waters region of Australia's wet-dry tropics. Mammals recorded as roadkill ranged in size from red kangaroo, *Osphranter rufus*, (90 kg body mass) to lesser long-eared bat, *Nyctophilus geoffroyi* (<10 g body mass). Six species of macropods (kangaroos and wallabies) dominated the sample numerically making up 70% of all vertebrates (N = 411). The number of macropods killed was high in the early dry and late dry seasons but declined during the wet season. The study found that the secondary roads sampled had a low rate of wildlife roadkill as a consequence of a low traffic volume. Projected increases in traffic volume with resource development in the region are predicted to result in an increase in wildlife-vehicle collisions. This is a concern particularly for two species of threatened macropod, *Lagorchestes conspicillatus* and *Onychogalea unguifera*.