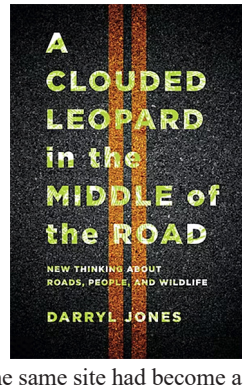
Conservation and Climate Change

A Clouded Leopard in the Middle of the Road: New Thinking about Roads, People, and Wildlife

By Darryl Jones. 2022. Cornell University Press. 272 pages, 26.95 CAD, Paper, 10.99 CAD, E-book.



The rather evocative title of this book (especially if you happen to like Clouded Leopards) refers to the time the author and his students observed this secretive jungle cat standing in the middle of a logging road in Borneo. To see a Clouded Leopard is a rare event, and to see one out in the open is rarer still. But, of relevance to the book, Darryl Jones notes that by the next year the same site had become a major highway, and the likelihood of a Clouded Leopard successfully crossing the new, busy road, or even surviving in the proceeding development, was doubtful. This anecdote captures the dual threats of transportation networks. Logging (or dirt or resource) roads, common in many regions and particularly in Canada, represent the threat of overharvesting, either legally or illegally, whereas paved highways represent the additional threat of direct mortality, commonly referred to as roadkill. More vehicles can travel at faster speeds on paved roads, and with ever-increasing human density and the concurrent footprint, roads are becoming a significant conservation issue for many wildlife species.

A Clouded Leopard in the Middle of the Road summarizes the problems of roads. These include increased annual levels of animal mortality (e.g., 14 million birds in Canada, 365 million mammals in the United States, and 5 million frogs in Australia [p. 20]); the creation of barriers to movement; and vibration, dust, and noise that can affect mammals and breeding birds. Two of seven chapters present a history of mitigation efforts. In particular, the book recounts the early days of engineering for human safety but also wildlife

movement, when large and expensive initiatives in the 1980s and 1990s erected extensive fencing bisected by wildlife underpasses and overpasses. Jones also discusses research and monitoring by Parks Canada along a 60-km stretch of the Trans-Canada Highway in Banff National Park. A proposal to twin the national highway in Banff—an iconic Canadian place known for Grizzly Bear, Elk, and Bighorn Sheep—warranted a solution to the problem of roadkill and barriers to wildlife movement. As a result, few places in the world have a better understanding than Banff of the impacts of vehicles and roads on wildlife, and how to mitigate these impacts. In later chapters, Jones explores more recent approaches, such as canopy crossings and glider poles, and the value of innovative signage (i.e., the number of dead animals to date), educating drivers, and working with municipal governments. Much work appears underway in Australia, particularly with canopy crossings, which are networks of ropes and bridges that allow arboreal species like Koalas to safely cross a road by walking along ropes high above the cars. In treeless spaces, glider poles are a line of spaced structures, like telephone poles, that permit Sugar Gliders and similar species in Australia to cross roads and the adjacent rights-of-way.

Jones is a professor in urban ecology at Griffith University, Queensland, Australia, who works mainly on urban birds and road ecology—a term that broadly relates to the impact of roads on wildlife. He has been involved in numerous mitigation initiatives, notably the assessment of canopy overpasses. In this book, Jones combines the experiences gained from mitigation projects, researchers, and managers in locations including Mongolia, North America, Brazil, and Australia to promote the idea of road ecology and show how planners, road engineers, and the public can achieve success. *A Clouded Leopard in the Middle of the Road* is not a technical product containing specifics on how wide a highway underpass for wildlife should be or, for example, where and how to erect a rope bridge. Instead, by providing numerous examples of ideas put into action, it is more of a call-to-arms for the conservation community to make roads less of a problem for wildlife. Some mitigation measures such as highway overpasses and underpasses—which cost tens of thousands of dollars—are only possible with considerable political will and financing. However, local communities working with transportation officials can apply some of these success stories, such as rope bridges and narrow tunnels for snakes. This focus on small and diverse projects in cooperation with, rather than in conflict against development is the ‘new thinking’ referred to in the title.

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