NOTE
ROADKILL RECORDS OF LOWLAND TAPIR
TAPIRUS TERRESTRIS (MAMMALIA: PERISSODACTYLA: TAPIRIDAE) BETWEEN KILOMETERS 06 AND 76 OF HIGHWAY BR-163, STATE OF PARÁ, BRAZIL

Marco A. de Freitas, Rodrigo C. Printes, Eric K. Motomyama, Assor E. Fucks & Diogo Veríssimo

26 November 2017 | Vol. 9 | No. 11 | Pp. 10948–10952
10.11609/jott.3227.9.11.10948-10952
Road networks are major vehicles for development but have important consequences for the populations of wildlife that come into contact with them (Laurance et al. 2014). Roads can act as barriers or filters, fragmenting habitats, but also have more direct impacts on wildlife such as road kills (Cáceres 2011; Ascensão et al. 2017). Yet, despite this crucial role, most roads in the world’s most biodiverse areas are laid without adequate planning and often with only rudimentary processes of environmental impact assessment (Laurance et al. 2014). A good example of this reality is Brazil, one of the world’s most biodiverse countries (Mittermeier et al. 1998). Brazil has an extensive road network, including some of the world’s most environmentally destructive roads (Laurance et al. 2009). Despite road ecology growing as a field throughout the last decade, the environmental licensing process is largely guided by an outdated resolution of the National Environmental Council of 1997 (CONAMA 1997; Cáceres 2011; Teixeira et al. 2013a,b; Carvalho et al. 2014; Machado et al. 2015; Deffaci et al. 2016). In Brazil, road ecology studies have focused on the center-west, southeast and south of the country, without much attention given to the roads of the Amazon, which began to be built in the 1970s. Direct mortality caused by road traffic has been repeatedly highlighted as a major threat to biodiversity (Laurance et al. 2009, 2014). This threat can be particularly problematic for species with slow reproduction rates and long generation times which may take them longer to recover (Medici & Desbiez 2012; Ascensão et al. 2017). One such species is the Lowland Tapir *Tapirus terrestris*, a species that is classified as Vulnerable in Brazil based on estimated decreases of more than 30% in area of occurrence and abundance (Medici et al. 2012).

Here we present multiple records of tapir road kill, registered on a section of the BR-163 highway that runs along the west border of the Biological Reserve (REBio, in its Portuguese acronym) Nascentes Serra do Cachimbo, in the state of Pará, Brazil (Fig. 1). This is a fully protected area within the Amazonian biome, with an area of 3424.78km². It includes parts of the municipalities of Altamira and Novo Progresso, Pará state, and border areas managed by the Panará and Menkragnoti indigenous...
people as well as the Cachimbo Brazilian Air Force base. Our goal is to highlight the dimension of this threat to the local tapir population and emphasize the need for mitigation measures.

As part of the law enforcement activities carried out by the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio), since 2013 its employees have started regularly using road BR-163, to travel the approximately 640km between the municipalities of Itaituba (Pará state) and Guara...
of collision with wildlife, particularly large bodied species such as the tapir, should also be a priority for both passenger and commercial drivers using the highway. For these vehicles a collision with an animal the size of a tapir can cause enormous damage and potential loss of life (Dornas et al. 2012). In a country like Brazil, where nearly two-thirds of federally protected areas are intersected by roads, and the number of roads both paved and unpaved is projected to continue to grow quickly (Bager et al. 2015), the issues we raise are likely to become increasingly important. It is urgent that future research goes beyond documenting the problem to investigate the potential of different approaches to mitigate the risks to biodiversity brought on by roads. An important part of this process will be to ensure the implementation of the mitigation and compensatory measures identified the environmental impact assessment exercises conducted at the time of licensing of any large scale roadwork such as the BR-163 highway.

References

Image 1. Photographic records of eight Lowland Tapirs recorded road killed in a section of the BR-163 highway, Pará state, Brazil, during May and July 2016. Numbers correspond to location in Figure 1. © Marco A. de Freitas

**Roadkill records of Lowland Tapir in Brazil**

Freitas et al.

---

**References**


Carvalho, N.C., N.O. Bordignon & J.T. Shapiro (2014). Fast and furious:
Roadkill records of Lowland Tapir in Brazil


Distribution and population of Himalayan Marmot -- S. Nikhil & P.O. Nameer, Pp. 10880–10885

Small carnivores of the montane forests of Eravikulam National Park in the Western Ghats, India -- S. Nikhil & P.O. Nameer, Pp. 10880–10885

Notes on their ecological roles Diptera) of Mumbai Metropolitan Region, Maharashtra, India, and Flies matter: a study of the diversity of Diptera families (Insecta: Diptera) of Mumbai Metropolitan Region, Maharashtra, India, and notes on their ecological roles -- Aniruddha H. Dhamorikar, Pp. 10865–10879

First record of Bourret’s Horseshoe Bat -- Vipin Chaudhary, R.S. Tripathi, Surjeet Singh & M.S. Raghuvanshi, Himalayana -- Subrat Debata, Pp. 10953–10955

Notes

Roadkill records of Lowland Tapir Tapiro terrestris (Mammalia: Perissodactyla: Tapiridae) between kilometers 06 and 76 of highway BR-163, state of Pará, Brazil -- Marco A. de Freitas, Rodrigo C. Printes, Eric K. Motoyama, Assor E. Fucks & Diogo Veríssimo, Pp. 10948–10952

Population size, herd structure and sex ratio of the Blackbuck Antilope cervicapra (Mammalia: Cetartiodactyla: Bovidae) in a human dominated area in Odisha, India -- Subrat Debata, Pp. 10953–10955

Population size, herd structure and sex ratio of the Blackbuck Antilope cervicapra (Mammalia: Cetartiodactyla: Bovidae) in a human dominated area in Odisha, India -- Subrat Debata, Pp. 10953–10955

Distribution and population of Himalayan Marmot -- S. Nikhil & P.O. Nameer, Pp. 10880–10885

Small carnivores of the montane forests of Eravikulam National Park in the Western Ghats, India -- S. Nikhil & P.O. Nameer, Pp. 10880–10885

Notes on their ecological roles Diptera) of Mumbai Metropolitan Region, Maharashtra, India, and Flies matter: a study of the diversity of Diptera families (Insecta: Diptera) of Mumbai Metropolitan Region, Maharashtra, India, and notes on their ecological roles -- Aniruddha H. Dhamorikar, Pp. 10865–10879

First record of Bourret’s Horseshoe Bat -- Vipin Chaudhary, R.S. Tripathi, Surjeet Singh & M.S. Raghuvanshi, Himalayana -- Subrat Debata, Pp. 10953–10955

Notes

Roadkill records of Lowland Tapir Tapiro terrestris (Mammalia: Perissodactyla: Tapiridae) between kilometers 06 and 76 of highway BR-163, state of Pará, Brazil -- Marco A. de Freitas, Rodrigo C. Printes, Eric K. Motoyama, Assor E. Fucks & Diogo Veríssimo, Pp. 10948–10952

Population size, herd structure and sex ratio of the Blackbuck Antilope cervicapra (Mammalia: Cetartiodactyla: Bovidae) in a human dominated area in Odisha, India -- Subrat Debata, Pp. 10953–10955