

## BRAZIL ROAD-KILL: a data set of wildlife terrestrial vertebrate road-kills

CLARA GRILO,<sup>1</sup> MICHELY R. COIMBRA, RAFAELA C. CERQUEIRA, PRISCILLA BARBOSA, RUBEM A. P. DORNAS, LARISSA O. GONÇALVES, FERNANDA Z. TEIXEIRA, IGOR PFEIFER COELHO, BRENDA R. SCHMIDT, DIANA L. K. PACHECO, GABRIELA SCHUCK, ISADORA B. ESPERANDO, JUAN A. ANZA, JÚLIA BEDUSCHI, NICOLE R. OLIVEIRA, PAULA F. PINHEIRO, ALEX BAGER, HELIO SECCO, MARCELLO GUERREIRO, CARINE F. CARVALHO, ALINE C. VELOSO, ANA E. I. CUSTÓDIO, OSWALDO MARÇAL JR., GIORDANO CIOCHETI, JULIA ASSIS, MILTON CÉZAR RIBEIRO, BEATRIZ S. S. FRANCISCO, JORGE J. CHEREM, TATIANE C. TRIGO, MÁRCIA M. A. JARDIM, INGRID C. FRANCESCHI, CAROLINE ESPINOSA, FLÁVIA P. TIRELLI, VLAMIR J. ROCHA, MARGARETH L. SEKIAMA, GEDIMAR P. BARBOSA, HELEN R. ROSSI, TAINAH C. MOREIRA, MARCELO CERVINI, CLARISSA ALVES ROSA, LUCAS GONÇALVES SILVA, CLAUDIA M. M. FERREIRA, AUGUSTO CÉSAR, JANAINA CASELLA, SÉRGIO L. MENDES, JULIANA ZINA, DEIVSON F. O. BASTOS, RICARDO A. T. SOUZA, PAULO A. HARTMANN, ANGELA C. G. DEFFACI, JÉSSICA MULINARI, SIANE C. LUZZI, TIAGO REZZADORI, CASSIANE KOLCENTI, TIAGO XAVIER REIS, VANESSA S. C. FONSECA, CAMILO F. GIORGI, RAISSA P. MIGLIORINI, CARLOS BENHUR KASPER, CECÍLIA BUENO, MARCELA SOBANSKI, ANA P. F. G. PEREIRA, FERNANDA A. G. ANDRADE, MARCUS E. B. FERNANDES, LUIZ L. C. CORRÊA, ADRIANA NÉPOMUCENO, AUREO BANHOS, WELLINGTON HANNIBAL, ROGÉRIO FONSECA, LIZIT A. COSTA, EMILIA P. MEDICI, ALINE CROCE, KARIN WERTHER, JULIANA P. OLIVEIRA, JULIA M. RIBEIRO, MARIELE DE SANTI, ALINE E. KAWANAMI, LIVIA PERLES, CAROLINE DO COUTO, DANIELA S. FIGUEIRÓ, EDUARDO EIZIRIK, ANTONIO A. CORREIA JR., FABIO M. CORRÊA, DIEGO QUEIROLO, ANDRÉ L. QUAGLIATTO, BRUNO H. SARANHOLI, PEDRO M. GALETTI JR., KAREN G. RODRIGUEZ-CASTRO, VIVIAN S. BRAZ, FREDERICO G. R. FRANÇA, GERSON BUSS, JOSIAS A. REZINI, MARÍLIA B. LION, CAROLINA C. CHEIDA, ANA C. R. LACERDA, CARLOS HENRIQUE FREITAS, FERNANDO VENÂNCIO, CRISTINA H. ADANIA, AUGUSTO F. BATISTELI, CARLA G. Z. HEGEL, JOSÉ A. MANTOVANI, FLÁVIO H. G. RODRIGUES, TATHIANA BAGATINI, NELSON H. A. CURI, LUCIANO EMMERT, RENATO H. ERDMANN, RAONI R. G. F. COSTA, AGUSTÍN MARTINELLI, CLARICE V. F. SANTOS, AND ANDREAS KINDEL

**Abstract.** Mortality from collision with vehicles is the most visible impact of road traffic on wildlife. Mortality due to roads (hereafter road-kill) can affect the dynamic of populations of many species and can, therefore, increase the risk of local decline or extinction. This is especially true in Brazil, where plans for road network upgrading and expansion overlaps biodiversity hotspot areas, which are of high importance for global conservation. Researchers, conservationists and road planners face the challenge to define a national strategy for road mitigation and wildlife conservation. The main goal of this dataset is a compilation of geo-referenced road-kill data from published and unpublished road surveys. This is the first Data Paper in the BRAZIL series (see ATLANTIC, NEOTROPICAL, and BRAZIL collections of Data Papers published in *Ecology*), which aims make public road-kill data for species in the Brazilian Regions. The dataset encompasses road-kill records from 45 personal communications and 26 studies published in peer-reviewed journals, theses and reports. The road-kill dataset comprises 21,512 records, 83% of which are identified to the species level ( $n = 450$  species). The dataset includes records of 31 amphibian species, 90 reptile species, 229 bird species, and 99 mammal species. One species is classified as Endangered, eight as Vulnerable and twelve as Near Threatened. The species with the highest number of records are: *Didelphis albiventris* ( $n = 1,549$ ), *Volatinia jacarina* ( $n = 1,238$ ), *Cercocyon thous* ( $n = 1,135$ ), *Helicops infrataeniatus* ( $n = 802$ ), and *Rhinella icterica* ( $n = 692$ ). Most of the records came from southern Brazil. However, observations of the road-kill incidence for non-Least Concern species are more spread across the country. This dataset can be used to identify which *taxa* seems to be vulnerable to traffic, analyze temporal and spatial patterns of road-kill at local, regional and national scales and also used to understand the effects of road-kill on population persistence. It may also contribute to studies that aims to understand the influence of landscape and environmental influences on road-kills, improve our knowledge on road-related strategies on biodiversity conservation and be used as complementary information on large-scale and macroecological studies. No copyright or proprietary restrictions are associated with the use of this data set other than citation of this Data Paper.

**Key words:** 1988–2017; amphibians; birds; Brazil; mammals; reptiles; road effects; road mortality; road survey; species occurrence; wildlife-vehicle collisions.

The complete data set is available as Supporting Information at: <http://onlinelibrary.wiley.com/doi/10.1002/ecy.2464/supinfo>.

### DATA AVAILABILITY

Associated data is also available <https://doi.org/10.5281/zenodo.1420508>.

Manuscript received 17 April 2018; revised 27 May 2018; accepted 29 May 2018. Corresponding Editor: William K. Michener.

<sup>1</sup> E-mail: [clarabentesgrilo@gmail.com](mailto:clarabentesgrilo@gmail.com)