Handbook of Road Ecology

Description: This authoritative volume brings together some of the world’s leading researchers, academics, practitioners and transportation agency personnel to present the current status of the ecological sustainability of the linear infrastructure—primarily road, rail and utility easements—that dissect and fragment landscapes globally. It outlines the potential impacts, demonstrates how this infrastructure is being improved, and how broad ecological principles are applied to mitigate the impact of road networks on wildlife.

Research and monitoring is an important aspect of road ecology, encompassing all phases of a transportation project. This book covers research and monitoring to span the entire project continuum starting with planning and design, through construction and into maintenance and management. It focuses on impacts and solutions for species groups and specific regions, with particular emphasis on the unique challenges facing Asia, South America and Africa.

Other key features:

Contributions from authors originating from over 25 countries, including from all continents

Each chapter summarizes important lessons, and includes lists of further reading and thoroughly up-to-date references

Highlights principles that address key points relevant to all phases in all road projects

Explains best-practices based on a number of successful international case studies

Chapters are stand-alone, but they also build upon and complement each other; extensive cross-referencing directs the reader to relevant material elsewhere in the book

Handbook of Road Ecology offers a comprehensive summary of approximately 30 years of global efforts to quantify the impacts of roads and traffic and implement effective mitigation. As such, it is essential reading for those involved in the planning, design, assessment and construction of new roads; the management and maintenance of existing roads; and the modifying or retrofitting of existing roads and problem locations. This handbook is an accessible resource for both developed and developing countries, including government transportation agencies, Government environmental/conservation agencies, NGOs, and road funding and donor organisations.

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