

'...this book is unique in walking the ecological reader through the actual steps necessary to create their own remotely sensed products.'

—**Woody Turner**, Program Scientist for Biological Diversity and Program Manager for Ecological Forecasting, Earth Science Division, NASA Headquarters

Remote Sensing and GIS for Ecologists Using Open Source Software enables ecologists to integrate remote sensing and GIS in their daily work. It will allow ecologists to get started with the application of remote sensing and to understand its potential and limitations. Using practical examples, the book covers all necessary steps from planning field campaigns to deriving ecologically relevant information through remote sensing and modelling of species distributions.

All practical examples in this book rely on Open Source software and freely available data sets. Quantum GIS (QGIS) is introduced for basic GIS data handling, and in-depth spatial analytics and statistics are conducted with the software package R.

Readers will learn how to apply remote sensing within ecological research projects, how to approach spatial data sampling and how to interpret remote sensing-derived products. The authors discuss a wide range of statistical analyses with regard to satellite data as well as specialised topics such as species distribution modeling. Extended scripts for specific spatial data analysis are also provided.

The book's website, **book.ecosens.org**, provides support, updates and resources.

Martin Wegmann works on remote sensing data analysis for biodiversity and conservation application at the University of Würzburg. He is an assistant professor at the Global Change Ecology Msc program and founding member of the AniMove 'animal movement and remote sensing for conservation' school. He has more than 10 years of experience in working with spatial data for ecological applications using Open Source software.

Benjamin Leutner is a research assistant at the department of remote sensing at the University of Würzburg. He has extensive experience in geo-spatial analysis of remote sensing data using Open Source software. His research focus is on the application of hyperspectral and LiDAR data to species distribution modelling in support of biodiversity research and conservation.

Stefan Dech is Director of the German Remote Sensing Data Center (DFD) and current spokesman of the Earth Observation Center (EOC) at the German Aerospace Center (DLR). Since 2001 he has held the Chair for Remote Sensing at the Institute of Geography and Geology of the University of Würzburg. His research focuses on satellite remote sensing applications for terrestrial ecosystem research in the context of global change and sustainable land use.

Data in the Wild is a series of practical books, sharing key tools and methods for the collection, analysis and interpretation of environmental data, published rapidly in print and digital formats.



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