

BOOK REVIEW

N. Horning, J.S. Robinson, E.J. Sterling, W. Turner, S. Spectro: REMOTE SENSING FOR ECOLOGY AND CONSERVATION: A HANDBOOK OF TECHNIQUES. – Oxford University Press Inc., New York, Paperback, 2010, 496 pages, ISBN 978–0–19–921995–7

Remote sensing is a valuable tool for evaluating the status and trends of ecological systems (Turner *et al.*, 2003). In broader sense, it refers to measuring a particular quality (such as the intensity of light reflected) of a feature without being in physical contact with the feature itself. By use of remote sensing methods, we used to detect natural features or patterns such as habitats, and land cover types or landscapes. Landscapes can be observed by simply viewing images acquired from aircraft or satellites and processing is done to facilitate the identification of specific features. Feature recognition algorithms developed for computer vision applications are available in specialized computer software to automate the identification of specific features in an image. At a finer scale, remote sensing is used to provide information to more effectively enforce rules protecting natural resources (Souza *et al.*, 2003). Conservation biology and ecology both have a spatial or geographic component, and it is a great tool for providing spatial information. But, the apparent complexities of remotely sensed data and analyses have tended to discourage scientists and managers from using this valuable resource. This book focuses on making remote sensing tools accessible to a larger number of non-specialists people, highlighting positive and negative points while emphasizing the ways that remotely sensed data can be captured and used, especially for evaluating human impacts on ecological systems.

In this backdrop, the current book entitled “Remote Sensing for Ecology and Conservation: A Handbook of Techniques”, by Ned Horning, Julie A. Robinson, Eleanor J. Sterling, Woody Turner, and Sacha Spector (2010), Oxford University Press Inc., New York, ISBN 978–0–19–921994–0 (Hbk.) and 978–0–19–921995–7 (Pbk.), £39.99 is a good contribution and it highlighted the various remote sensing tools so that ecologists and conservation biologists can assess the tools they need and know when to use the tools. The book contains fifteen chapters. Chapter 1 is introductory and dealing the aim and objectives of remote sensing in ecology and conservation. Uses and application of remote sensing has been discussed here. Chapter 2 and 3 discusses physical and practical limitations of remotely sensed imagery including resolution and accuracy of remote sensing data and softwares related to remote sensing and GIS. It also includes visualizing the data, geometric and radiometric processing as well as visual image interpretation and classification. Chapter 4 included measuring and monitoring land cover, land use, and vegetation characteristics. Chapter 5 and 6 includes elevation, representing surfaces in three dimensions, Digital Elevation Model pre- processing and products derived from DEMs, terrain and soils. Chapter 7 and 8 includes wetlands (estuaries, inland wetlands and freshwater lakes) as well as climate and the physical environment. Here, emphasis is given on global climate modelling applications to ecology and conservation. In chapter 9 and 10 remote sensing of fire, floods, volcanoes and other disturbances has been discussed. In chapter 11 and 12, emphasis are on the importance of remotely sensed data for studying urban interfaces, data sources for urban classification, planning, managing and monitoring for protected areas. In chapter 13 and 14 integrating field data and remotely sensed data as well as linking remote sensing data with modelling has been discussed in detail. As the work of conservation biology has grown from local to mapping and managing biodiversity on a global scale. Remote sensing, with the help of satellite and aerial imaging, measure and map the environment, increasingly provides a vital tool for effective collection of the information

needed to research and set policy for conservation priorities. In the last chapter, global conservation is linked with remote sensing. Monitoring changes on earth surface and ecological forecasting is discussed in detail in this chapter.

This book is suitable to the beginners in remote sensing (graduate students) as it is a complete elucidation of remote sensing in a simple and lucid manner, highlighting strengths and limitations while working with remote sensing data. This book contains 150 illustrations in full colour for conveying the intended theme and structured around terrestrial and aquatic biomes. Moreover, the book is suitable for researcher and scientists also that working on field of landscape ecology with remotely sensed data.

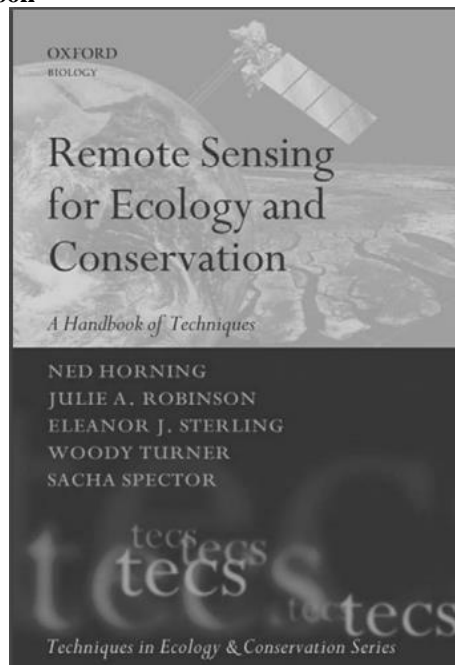
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Fig. 1: Cover page of book



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