Book Review

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Primate Ecology and Conservation: A Handbook of Techniques

Oxford University Press, Oxford 2013
448 pp.; GBP 34.95
ISBN 978–0–19–965945–6

As I start reading this book, I am on my way to Laos, where I am planning to establish a long-term research project on primates. Although some sections were more relevant to me than others, the content provides a thorough and up-to-date guideline of existing primatological techniques for the study of primate ecology and conservation in both wild and captive settings. Some sections are, however, more detailed than others and overall more illustrations could have been included to aid with the understanding of some methods described. The book comprises 19 chapters, including a general introduction and conclusion, as well as a bibliography and an index section, totalling 448 pages. It covers 17 themes, each in a separate chapter, where methods are reviewed and described by experts in these fields. In chapter 2, the different ways to survey primates are reviewed with a special focus put on the distance sampling method, currently the most commonly used. Chapter 3 discusses darting, anaesthesia and handling techniques; these are the most invasive practices to study wild populations and therefore need to be carefully planned with experienced personnel, with consideration given to the ethical implications. Chapter 4 describes methods to design a health assessment and epidemiology study, and how to collect and analyse samples and includes technical advice based on the authors' experience. Chapter 5 reviews the different sampling methods to observe primate behaviours, in particular activity budget, feeding behaviour and social interactions. Chapter 6 presents different techniques to describe primate habitats and introduces the reader to the use of niche modelling (here, with MaxEnt and GARP software), used when field data are limited and predictions can help with research planning. In chapter 7, different sampling designs are described and compared (e.g. plots, focal-plant taxa), and the use of new technologies (e.g. remote sensing, drones) is discussed to assess plant phenology in primate habitats. Chapter 8 examines methods in ethnoprimateology to measure anthropogenic disturbance on primate habitat including the study of range overlap and resource use, and the study of local knowledge and perceptions of nature. Chapter 9 describes techniques to study the social and spatial relationships between inter- and intraspecific primate groups via observational, empirical and theoretical protocols. In chapter 10, the authors contrast the use of field studies versus captive experiments and show how both situations can be combined and complementary to increase our knowledge of specific primate behaviours, with some examples presented. Chapter 11 describes some techniques to collect, process and analyse primate food samples to examine the mechanical and nutritional properties of primate diets. Chapter 12 presents methods to study the physiological adaptations of primates to their environment, involving both field observation and laboratory trials. Chapter 13 reviews how and from which biological materials hormones can be extracted to study hormone-behaviour interactions. Chapter 14 discusses the collection, preservation, processing and analysis of samples to study population genetics, molecular phylogenetics and phylogeography. Chapter 15 examines the ways to describe demographic parameters, life history characteristics and population dynamics of primates. Chapter 16

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gives some guidelines to assess a species' conservation status following the IUCN Red List criteria and how to plan for conservation action using a multidisciplinary approach. In chapter 17, the authors discuss the role of zoos in ex situ and in situ primate conservation. Chapter 18 explores the techniques to investigate patterns of human harvest, consumption, use and trade in wild-caught primates. Overall, the content provides a good overview to the numerous topics related to the study of primate ecology and conservation but will need to be complemented with the more detailed literature listed in the bibliography. Nevertheless, the book will be very useful as a quick key reference to field project managers, students, and project supervisors wishing to plan and/or teach methodological aspects of primate ecology and conservation research.

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