author has tried to provide a naming system for the Argyres–Douglas theories, too. In chapter 11, the solutions to $SU(N)$ and $SO(2N)$ theories with and without hypermultiplets in the fundamental representation is described. The theory is analysed using the Sieberg–Witten curves and semi-classical analysis. For $SU(N)$ theory mass of monopole is identified in eq. (11.2.13). Similar study for $SO(2N)$ led to running coupling as in eq. (11.4.24). The Argyres–Douglas CFTs are obtained for these theories and the Sieberg–Witten solutions to the theories are mentioned in this chapter. The presentation in this chapter is satisfactory. In chapter 12, the S-duality of the $SU(N)$ gauge theory with $2N$ flavours and its generalization are well presented. Crucial roles would be played by punctures on the UV curve labelled by Young diagrams with N boxes whose relation to the Higgs branch will be explained. As an application to the superconformal field theories with exceptional flavour symmetries $E_{6,7,8}$ are constructed. Appendix A discusses prepotential and the instanton computation, while Appendix B discusses the Zoo of $N = 2$ theories. Both appendices are illustrated well.

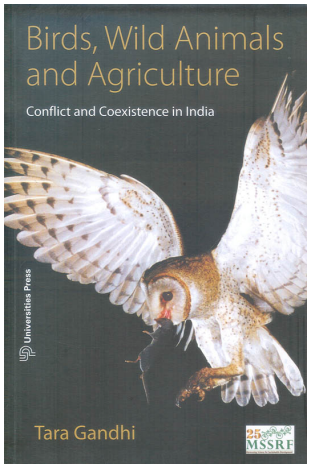
Chapter 13 summarizes the whole book. The book is authentic as far as valuable references are concerned. Most importantly, this book mentions the open problems and issues which are missing in most other such books. Some unsolved problems are as follows (p. 204):

- $N = 2$ supersymmetric $SU(7)$ gauge theory with a hypermultiplet in the three-index anti-symmetric tensor representation.
- $N = 2$ supersymmetric $SU(2)^3$ gauge theory with a massive full hypermultiplet in the trifundamental (Q_{aiu}, $\tilde{Q}^{aiu}$), have not been solved yet.

Overall the book is excellent and is easy reading for an advanced researcher of this field.

ALOK KUMAR

Department of Physics and Nanotechnology,
SRM University, Kattankulathur,
Kancheepuram 603 203, India
e-mail: alokkumar.m@ktr.srmuniv.ac.in



Birds, Wild Animals and Agriculture: Conflict and Coexistence in India. Tara Gandhi. Universities Press (India), Private Limited, 3-6-747/1/A and 3-6-754/1, Himayatnagar, Hyderabad 500 029. 2015. viii + 216 pp. Price: Rs 500. ISBN 978-81-7371-9516.

Competition for resources between species is one of the key drivers of the dynamics of biological communities and ecosystems. As a result, competition in biological communities has been the most widely researched aspect of ecology. However competition between humans and other animals has come to be known as 'human–animal conflict', thereafter limiting the scope of research on the subject throughout the world. Currently, the subject of human–animal conflict has a narrow focus, and only attracts the attention of wildlife biologists and reserve managers.

A wide range of resource-use conflicts between humans and other animals is known. Over the past couple of weeks I have been watching the desperate attempts of a pair of Scaly-breasted Munias to build a nest behind the air-conditioner in my neighbour's balcony. After a day's hard work, the birds are left only to start from where they began when the man of the apartment promptly removes the nest and throws it away. This is just one form of conflict. There are other forms, wherein the affected animal retaliates resulting even in death of one or both involved in the conflict.

Human–animal conflicts that result in loss of lives and property are seen as detrimental to society as well as wildlife conservation. Governments have established various schemes for compensating the loss of human lives and property. While the system of monetary compensation for the loss of human life and property is widely practised in the country, it has failed to complement wildlife conservation. Consequently governments and conservation biologists are seeking answers in traditional systems of human–animal conflict mitigation and harmonious co-existence.

Traditional systems of conflict mitigation in India evolved in agro-ecosystems. Birds, rodents and a variety of other wild animals damage crops irrespective of the agro-ecology of the region. Historically humans have devised numerous simple means to minimize the damage and also prevent direct conflicts with the animals involved. Several traditional and ingenious methods of conflict resolution in agro-ecosystems persist all over India; the book under review has made an attempt to document some of the more explicit ones.

The book is the outcome of the author's five years of travel, and documentation of conflicts and co-existence in agro-ecosystems across the country, while being associated with the M.S. Swaminathan Research Foundation, Chennai. Many photographs presented by the author in the book suggest this. The book is organized as four parts: the first deals with aspects of human–wildlife conflicts and co-existence; the second deals with birds in agriculture; the third is focused on wild animals as crop depredators, and the fourth is a selection of case studies on birds and mammals in agriculture.

The book is well illustrated with numerous photographs and a handful of maps. Although mammals are also dealt with, the focus of the book has been on birds. The author has discussed birds as pollinators, as predators of insect pests, as dispersers of seeds and also as crop-raiders. The fact that the proportion of Indian birds that play a helpful role in the

Purple Sunbird drinking flower nectar (photograph © K. Gnanaskandan).

agro-ecosystems is more than the proportion that damages crops has been highlighted. Examples of people locally protecting birds in agriculture fully aware of their usefulness have also been incorporated. These examples include the co-existence with humans of large birds such as the Sarus Crane in rural landscapes of North India. They also discuss the use of artificial perches in crop fields that attract predatory birds, especially owls that prey on small rodents.

Much of the text is based on direct interviews by the author of rural people locally supplemented with inputs from researchers who have been widely working on the issue of human–animal conflict in India. Questionnaire-based case studies have also been used in substantiating some of the findings presented in the book.

'Birds as farmers' friends' is the core of one of the chapters. This well-illustrated chapter talks about the specific crop pests that are eaten by the different species of birds. An estimated 85% of all species of Indian birds is described as being useful to agriculture. Yet another chapter is devoted to 'monkeys'. Rhesus macaque, bonnet macaque and Hanuman langur, the three most widely distributed species of primates in India, and their crop-raiding habits have been discussed in this chapter. Other chapters cover a wide range of relevant topics such as causes of conflicts, policies and strategies to minimize conflicts, overview of crop protection methods commonly used in India, protecting crops from bird damage, conserving birds beneficial to agriculture, etc.

While introducing the book to the readers the author has stated in the Preface: 'this book aims to promote improved human–wildlife equations by examining the complexities of the problems concerning conflict and looking at examples of harmonious co-habitation, with a view to exploring options for addressing the former and drawing models from the latter'. Having set this ambitious goal, the author has tried to compile examples of conflicts and co-existence from localities across the country. However while she has succeeded in covering a wide range of issues across diverse landscapes, an in-depth analysis of the problem needed to make it a valuable reference book is lacking.

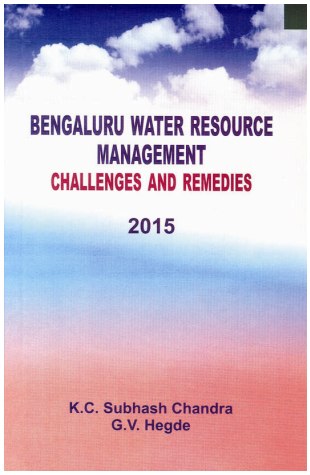
The main reason for the author's failure in making the book a concise source of information on human–animal conflicts is the style of presentation. The text is quite rambling and presented in the form of a report. For instance, the fourth part that presents the case studies does not have an introduction to the studies presented, nor does it attempt a synthesis of the findings contained in the many tables. In fact, there is no justification as to why all the case studies are limited to the state of Karnataka, when the book has a national perspective. The first three parts of the book have been split into 18 chapters and each chapter divided into several sub-sections with sub-headings. The frequent sub-headings have resulted in the text being fragmented further that on some instances the text under a sub-heading is merely a small paragraph.

The Preface also states that the book is meant to be useful to agriculturists, wildlife conservationists, students, NGOs working in the field, and also to stimulate interest among Government policy makers and implementation agencies. However, while reading the book, it does not inspire the reader to recommend it to any of these stakeholders. Take for instance the following passage: 'the classical definition of a bird is a "feathered biped". Birds are warm-blooded vertebrates distinguished by their ability to fly, though there are some flightless species like the Kiwi in New Zealand or the Ostrich in Australia' (p. 79). It is not clear who would benefit by statements like this.

In India, human–animal conflicts, be they in agro-ecosystems or along the fringes of protected areas are reasons for social, economic and political dilemma. The issue is one that demands in-depth research that leads to practical long-term solutions. The book under review has succeeded in merely setting the stage for further research on the various dimensions of human–animal conflicts. However, if this is indeed the purpose of the book, I will say the same has been well achieved.

R. J. RANJIT DANIELS

Care Earth Trust,
No. 3, 6th Street,
Thillaiganganagar,
Chennai 600 061, India
e-mail: ranjit.daniels@gmail.com



Bengaluru Water Resource Management: Challenges and Remedies. K. C. Subhash Chandra and G. V. Hegde. Institute for Natural Resources Conservation, Education, Research and Training (INCERT). 2015. xxiii + 135 pp. Price: Rs 600.

Bengaluru is the capital of Karnataka. It is also known as the information technology (IT) capital or Silicon Valley of India. The city has a long history, but it has witnessed tremendous growth over the past 50 years or so. According to the census of 1951, the population of Bengaluru was below 8 lakhs. However, due to rapid influx in IT-based companies and service industry, Bengaluru has witnessed a huge growth in population over the past six decades; the current population of the city is estimated to be close to 90 lakhs. The areal extent of the city has increased from about 29 sq. km in 1901 to about 800 sq. km at present. It is estimated that the population of Bengaluru will be close to one crore by the year 2020.

An unprecedented growth in the city has put immense stress on the infrastructure and has given rise to a number of problems, for example, frequent traffic jams, air pollution, water scarcity and pollution, urban flooding, disappearing lakes, etc. This book deals with challenges and remedies in water resources management for Bengaluru. Undoubtedly, the book is timely.

The subject matter of the book has been divided into 12 chapters. The Chapters 1–3 essentially give a brief snapshot of the city. The reader is introduced to the city, its historical background, population and its growth, and the climate. Since Bengaluru is located on a plateau