

seventy million years. A remarkable fact about the Coelacanth is that fossil and living coelacanths show little difference in their structure despite the varied physical environments inhabited by the group during its 300 million year history. Since its discovery off the coast of South Africa in 1938, other specimens have been collected from the same area. One much publicised capture was made in 1952, from off the Comoro Islands near Madagascar. This specimen was named by its collector, with unwitting irony one believes, *Malania*, after the former Premier of South Africa, Dr. Malan.

The causes of extinction are examined in the light of species that have become extinct within recent years. The author after scrutinizing the evidence available from such classic cases as that of the Passenger Pigeon and the Great Auk, comes to the conclusion that extinction is not the result of a single factor but due to a chain of unfavourable circumstances. Another noteworthy point is that gregarious species are more liable to decline under adverse conditions than those which lead a solitary existence.

From the history of 'living fossils' it is clear that survival—like extinction—depends on a number of factors, which are primarily: a habitat which affords protection from the elements and natural predators, a constant food supply, specific longevity, and extended provision for the young.

In the final chapter the evidence, for and against the existence of mysterious animals like the Nandi Bear and the Abominable Snowman are discussed. It is surprising to note the absence of the finding of the African peacock-like bird *Afropavo* in the account of the recent discoveries. The story of this bird is as exciting as a well-written piece of detective fiction. The clues were a single feather in the cap of a Congo native and two moth-eaten specimens in a Belgian Museum labelled as the young of the common peafowl. These made the wheels turn which led to the discovery of this remarkable bird in the late thirties of the present century.

The book is excellent reading and brings together facts which are usually difficult to find under one cover. The illustrations are well chosen.

J.C.D.

10. THE WILD FLOWERS OF KUWAIT AND BAHRAIN. By Violet Dickson. Pp. 144 (21.5 × 14 cm.) Profusely illustrated. London, 1955 (George Allen & Unwin). 25s. net.

This is a very welcome publication; it is not a text-book of botany on the plants of Kuwait, but it gives a very fair idea of the flora of the district and of other parts of Arabia. In India most of our knowledge of the flora of Arabia is derived from the work of Fr. Blatter, 'Flora Arabica,' and 'Flora of Aden', published in the *Records of the Botanical Survey of India*. My information goes to show that Blatter prepared the MS. of his books mainly in European herbaria; Joseph Fernandes, his assistant, did go to Arabia and make collections in the neighbourhood of Muscat; similarly Col. Hotson sent to Blatter numerous specimens from various parts of Arabia and Mesopotamia;

but in general the work of Blatter was based mainly on preserved European collections. The merit of the present book is that the details therein gathered have been picked up in the field by the authoress, and specimens have been identified by the specialist in Kew Gardens.

There are in all four maps at the beginning of the book; I have nothing but praise for their artistic presentation. The numerous line drawings give in bold outline the main features of the plant; in connection with these drawings I have been agreeably surprised to see that although the authoress is not a trained botanist, she has done what many professionals seem often to forget: she has given the scale for each of her diagrams, and this apparently small detail may help the amateur on the spot to identify the plants. The diagrams are neat, and free from unnecessary detail.

After the diagrams, the most interesting part of the book is the lengthy 'List of Vascular Plants'; the list is an alphabetical one, the order followed is that of the scientific names of the plants. As the book is intended for the amateur, descriptions are simple and in non-technical language; she gives popular uses, and at times tales or traditions, of the plants; the localities where the plant has been seen, and often its flowering and fruiting times are mentioned. Among the Vascular Plants, a full technical description in English is given by Dr. W. Turrill of *Horwoodia dicksoniae*, a new genus of Cruciferae collected by Mrs. Dickson. The description is accompanied by neat diagrams showing all the essential parts of the plant in the style that is usual with Kew artists.

From p. 100 onwards, the authoress gives a number of shorter notes on Algæ, on the edible fungi of Kuwait, on the Arabic names of some plants, on some types of vegetation near Kuwait etc.

One point may surprise many of the readers of this delightful book. The authoress speaks of the desert, and yet she mentions a large number of flowers or flowering plants found in the district. This simply means that with a little patience and after a small amount of training, one can find very beautiful flowers even in the deserts; they must be found at their own proper time. It is to the large numbers of technical personnel engaged in the oil business in the Kuwait area that Mrs. Dickson has rendered a special service; this reviewer wishes all success to the book, and in particular that it may help visitors to pay some attention to the sometimes abundant plant life of what is commonly cited as one of the more barren deserts of the world. The presentation of the book, its printing etc. is of a very high standard.

H. SANTAPAU

II. THE BOOK OF INDIAN BIRDS. By Sálim Ali. 5th (Revised) edition. Pp. xlvii + 142, ($7\frac{1}{4}'' \times 4\frac{3}{4}''$) 78 plates (56 in colour by D. V. Cowen), 3 diagrams and 2 end paper maps. Bombay Natural History Society, Bombay, 1955. Rs. 20/- net.

The fourth edition of Sálim Ali's 'Book of Indian Birds' was out of print for some years, and during this period there has been a steady demand for the book. It is a pleasure, therefore, to welcome this revised version. Except for the five general chapters that have been brought

up to date, the whole book has been rewritten and remodelled so that we have an altogether new book before us. Instead of a single species each plate now provides four species done from entirely new drawings. Corresponding to this change, the text has been suitably rewritten. Sálím Ali is indeed a master in his subject, and it is amazing how admirably he has given a wealth of information in such a short space. These changes have, moreover, yielded enough space for the inclusion of descriptions and illustrations of 27 additional species in a slimmer volume. Another novel feature is the provision of Hindi names of birds wherever available.

A weakness of the earlier editions was the badly produced coloured plates. In this edition, although considerable improvement has been effected by new drawings and new blocks, yet the printers have not done justice to the talented artist in reproducing them; several of the coloured plates show either a wrong colour combination or are off registration. The defects in the coloured plates strike one particularly, because this book follows so soon after the author's 'Birds of Travancore & Cochin' which has a most pleasing aesthetic effect. Furthermore, except in a few instances, no attempt has been made to 'modernize' the scientific names of birds, as the author has done in his paper on 'Birds of Gujarat' recently published in the *Journal of the Bombay Natural History Society*. In a work like 'The Book of Indian Birds' scientific names may not be an essential feature, but since they have been included, they should have been brought up to date.

The general printing, binding and get-up are neat.

The reviewer sincerely hopes that this only pocket-sized handbook of Indian birds will continue to enjoy the same popularity as its previous editions did.

B. BISWAS

12. SOME BEAUTIFUL INDIAN TREES. By Ethelbert Blatter and Walter Samuel Millard. Second edition revised by William T. Stearn. Bombay Natural History Society, 1954. Pp. xv + 165, (24.5 × 16 cm.); frontisp. + 31 coloured plates, numerous black-and-white plates, text-figures. Rs. 20/-

13. SOME BEAUTIFUL INDIAN CLIMBERS AND SHRUBS. By N. L. Bor and M. B. Raizada. Pp. viii + 286 (24.5 × 16.5 cm.); with 31 coloured and 99 half-tone plates and 154 text-figures. Bombay Natural History Society, 1954. Rs. 22/-

In the course of many years of teaching botany to university students in Bombay, and in my dealings with many visitors to India, particularly during the War years, I have received many inquiries about these two books under review; the first one had been out of print for many years, and it was very difficult to obtain even a second-hand copy; the second book was advertised as ready to appear but the final publication was delayed for years for reasons beyond the control of the Society. The almost simultaneous appearance of the two books is most welcome; persons interested in the subject

will be able to obtain both books together. Both books appeared in the first instance in the form of a series of papers published in the *Journal* of the Society; in the present publication there are but a few slight alterations (generally additions) to what has already appeared in the *Journal*. These two books come to fill a real need in India, and will be welcome not only to students but also to all those interested in knowing something of the beautiful resources of the country.

Blatter and Millard's book is in the second edition; Prof. W. T. Stearn, of the British Museum (Natural History) London, has taken great pains in the revision of the book. This reviewer welcomes the additions and changes that have been introduced in this edition: there are several appendices that will make the book most useful to students; the names of many trees have been changed to what is considered the correct scientific name, and the order of treatment in the book has been altered accordingly, so that the final arrangement is by alphabetical order of trees according to their revised scientific names. This edition gives the references to the original publications where the names first appeared (but the system of giving such references is a complicated one, somewhat different from the one recommended by the International Code of Botanical Nomenclature, Appendix VI). The printing of the book is of a very high standard, both for the text and for the plates. In general I find this edition an improvement on the first, with but one exception: some of the colour plates show colours that seem to be rather different from the actual trees represented, the first edition was more accurate in this respect.

Bor and Raizada's book is also a faithful reproduction of the series that has been appearing in the *Journal* in the last 10 or 12 years, with some additions. In the book every family has been given a short introduction; at the end of the book the authors have added a short glossary that will make technical terms intelligible to the general reader. Plants are listed by the names commonly used in gardeners' books, even though often such names are far from correct botanically; to satisfy more exacting readers the authors give the correct botanical name in brackets, wherever the gardeners' name differs from the scientific one. Every plant is given a full botanical description, times of flowering and/or fruiting, country of origin and distribution of the plant, gardening notes, economic uses of the plant.

One word about the colour plates; the beginning of the series was printed by John Bale & Sons of London; gradually as the last World War progressed it became impossible to print such plates in Britain and had to be printed locally; for some time there were plenty of reserve materials in this country and the plates kept up the high standard of the beginning of the series; in time, however, it became very difficult to obtain printing coloured inks, and the quality of the plates deteriorated considerably. It is to be hoped that when a second edition becomes necessary, new plates will be printed from materials that will reproduce the original colours of Ganga Singh's paintings in all their brilliancy.

Another point of interest in the case of the second book, a point that will make the book more attractive to botanical readers. Most