

## Book reviews

### The Biology of Grasses

By G.P. CHAPMAN. Published by CAB International, 1996. 273 pp. Price £45. ISBN 0 85199 111 4.

This is a remarkably good book, but it is not a book for all readers of *Tropical Grasslands*. It contains very little about pastures or rangelands in general, and even less about tropical ones. In language and subject matter, it is directed mainly at professional biologists. So, if your interest in grasses is only in their role as pasture plants, and if you are at the production end of the spectrum, you are unlikely to want to read it. On the other hand, if you have enough background in biology to be familiar with the words, and if you are (like the author) fascinated by grasses in their broadest sense, then I can thoroughly recommend the book to you.

The author is an academic, a teacher, and an authority on his subject. He wrote the book for biologists because it is with biologists that he routinely communicates. But he did not write it for a particular sector of the biological audience. It is a personal book, and he wrote it to satisfy his urge to communicate his knowledge and ideas to anyone of like interest. It thus reflects his own experiences, which, while extensive, are patchy (and, unfortunately from our point of view, barely skirt on pastures). While this may appear incomplete or undirected, it has advantages. The greatest one is that it gives the text a freshness that is absent from those dreary tomes whose authors feel obliged, for the sake of completeness, to grind their way through topics that they know or care very little about.

The result is that you can open the book anywhere (literally, even at the Glossary), read systematically or browse (it doesn't matter), and continue because you are infected by the author's enthusiasm for his subject. Much of what you read you may already know, but there will always be interesting ideas to set you thinking, or facts that you ought to have known but have somehow previously escaped you.

It also helps that the book is written in very good English. Every sentence means exactly what it is intended to mean, and uses the simplest and most direct language. No participles dangle, no constructions offend the sense of structural logic. The author thinks and communicates clearly.

Ideas and descriptions are developed along unbroken and easily followed paths. Your complete concentration is needed, but is easy to give and is amply rewarded. The text is supplemented with illustrations, not lavish ones but good black-and-white photographs and excellent line drawings. If you want to pursue any topic in greater depth, carefully chosen starting points are recommended to make the task easier for you. All other sources are listed conventionally as references too.

The subject matter is exactly what the title states. *Biology* includes morphology, anatomy, taxonomy, physiology (especially photosynthesis and its two biochemical pathways), evolution and genetics, domestication, and ecology. *Grasses* means the whole of the family and, because the grass family is so extensive and diverse, this is where personal interest leaves its mark on what is emphasised or neglected. The bamboos, so strange and different from the European concept of conventional grasses, fascinate the author and accordingly receive much attention. Domestication and its products — the cereals — interest him as much as their untamed relatives, and almost a tenth of the book is devoted to the controversial and remarkable history of domestication of maize. Familiar warm-climate grasses receive their share of attention, but in matters of form, structure and taxonomy rather than use. The treatment of ecology is the most sketchy part from our point of view, not for any fault with what is covered, but for what is not covered. I had hoped that one so interested and interesting in other respects would have been equally attracted to the remarkable symbiosis between plant and animal or grass and legume. It is probably just the old story of there not being enough room inside one head for everything. It is a minor disappointment, but it does not detract from the quality or value of what is there.

The thing I liked most about the book, however, was its reinvigorating effect. There is nothing better to reinforce your own enthusiasm than to read a fresh viewpoint by another enthusiast. If this is what you sometimes feel you need, then buy the book.

John Hopkinson

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