

own copy. Unfortunately, even if it is put out now at a reduced price in soft covers it will have lost a good deal of impact by having become a year out of date. I think this is an excellent book, which has the character more of a review journal such as *TIGs* rather than a review book such as *Annual Reviews of Genetics*. I would like to see the annual release of mini-review collections of this type, provided such a uniformly high quality is maintained. Everyone should have their own copy, but which of us can afford hard covers?

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Veterinary Genetics, By F. W. NICHOLAS. Oxford University Press. 1987. 580 pages. £19.50. ISBN 0 19 857569 6.

One is often disappointed to find that the title of a book promises more than it actually has to offer. Quite the reverse is the case for this text for, although primarily aimed at vet students and practitioners, it contains information for a much wider audience. It should be a useful text and reference book for those interested in the genetics, breeding and production of domestic animals, although containing more of detail and difficulty than the non-dedicated student will appreciate.

Essentially the book comprises an introductory section on basic Mendelian and molecular genetics, a section with a more detailed analysis of genetics which can have disease implications, such as biochemical genetics, chromosomes, immunogenetics and host-parasite interrelations and a final section on animal improvement. The depth of coverage is illustrated by the excellent chapter on immunogenetics, which deals with antibody structure, assembly and diversity and then with the structure and disease associations of the major histocompatibility complex. The writing is clear and there is a nice summary section at the end of each chapter.

As a non-veterinarian, I find the book of most

interest for its wealth of information and examples of the genetics of domestic animal species. I had not appreciated, for example, what an important problem hip dysplasia was in dogs nor what a nice model it was for a congenital disease which did not display single gene inheritance. Similarly, I liked the descriptions and discussions of drug resistance in blowfly. There is a comprehensive review of traits inherited by identifiable genes together with their practical implications, such as progeny testing to remove recessive defects and use of sex-linked plumage markers for sexing poultry, and their less important aspects (although fanciers might not agree) related to hair colour pattern in cats.

The section on animal improvement is essentially a comprehensive coverage of quantitative genetics theory, including topics such as selection indices (treated well, except for the absence of discussion of multi-trait selection on relatives) and heterosis in different types of crossing programme. The more mathematical details are given in appendices, leaving a readable text.

If veterinary students or practitioners assimilated all that Nicholas covers, they would be knowledgeable indeed. Even if they only get part way there, for this is a long and detailed coverage, I am sure they will be able to take more rational decisions in consultation and treatment. (A personal anecdote may illustrate some of the current ignorance: I was surprised recently to encounter a well-respected vet apparently unaware that anything was known about the genetics of the MHC system and that it had any relevance to disease, and indeed seemed not to have heard of HLA in man or the B locus in poultry!) I suspect there is more here than many need, for example on quantitative genetics in animal breeding. This material is, however, useful for those in animal science, and in many countries the animal scientists are trained as veterinarians.

Frank Nicholas has clearly put a lot of time and effort into this new book. It has been fully justified by the end product.

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