

BOOK REVIEW

Biology, Husbandry and Medicine of the Green Iguana. E. R. Jacobson ed. (2003). 188 pp. Krieger Publishing Co., Florida. £35.50 (cloth).

If you remember *Iguanas: A Guide to their Biology and Captive Care* by Frye and Townsend, imagine that book greatly expanded with sections on wild iguana behaviour and iguana development, reams of unpublished information, and re-written by a suite of distinguished biologists and veterinarians, and you have something approaching the title under review. But how much more do we really need to know about green iguanas? Well, it appears from this enormously informative and highly readable volume that there is a great deal any self-respecting 'iguanophile' or reptile veterinarian should be seeking to absorb and a great deal still waiting to be discovered.

The *Biology, Husbandry, and Medicine of the Green Iguana* is an encyclopaedic synopsis of pretty much all that is known about this familiar – yet even now not entirely understood – lizard. Though the varied topics covered in its ten independently authored chapters are summaries by necessity, none is too brief and each covers its respective field comprehensively with reference to the past half-century of relevant work on the species.

The first three chapters deal predominantly with the natural history of the green iguana in the wild. Chapter one concerns *Biology and Reproduction in the Wild* and does an admirable job of presenting a wealth of varied information in a very accessible way. Only in the author's discussion of distribution and variation could I find any oversight; the lack of any reference to the very important Caribbean island populations of this species. Perhaps though, this serves to highlight the dearth of information regarding these island forms. The repeated reference to *Iguana delicatissima* as being "nearly identical" to *Iguana iguana* struck a note of dissatisfaction also, for having worked with the former species for a decade I know this not to be the case. However, these are minor gripes and ones that result largely from my personal interest in the various Caribbean iguanas.

The second chapter, *Ontogeny of Captive and Wild Iguanas: From Emergence to Mating*, takes a detailed look at growth and development from incubation through to sexual maturity and reproduction, and compares data from wild and captive studies. The authors identify through their evaluation of the available data, key areas for future research including the influence of incubation conditions upon viability of hatchlings, the independent and interacting roles of visual and chemical signalling, and the relationship between juvenile social status, adult mating strategies and eventual lifetime reproductive success.

Nutrition in the Wild is the topic of chapter three and provides the reader with a concise overview of what is known about the diet of iguanas in the wild. It is concise mainly owing to the paucity of reliable data on the sub-

ject and this, it is proposed, is a result of the difficulty of observing iguanas undisturbed in the wild state and the tiny fraction of time (less than 1%) that they spend feeding. The chapter is also a powerful reminder to captive managers that iguanas are strict herbivores, eating predominantly leaves, and require body temperatures similar to our own if they are to digest their food adequately.

Chapters four and five cover nutrition and management in captivity and between them contribute almost one third of the book. Despite the scientific tone of this book, therefore, these two chapters alone make this book a valuable addition to the bookshelf of any serious iguana keeper as well as to those of the student and professional herpetologist. *Nutrition in Captivity*, the fourth chapter, in particular makes interesting if slightly heavy reading in its very detailed examination of nutritional requirements and the provision of diets in captivity. An alarming variation in the composition of commercial diets is revealed and yet a slightly controversial recommendation is made; that these commercial diets should be used in preference to "nutritionally incomplete" and "inadequate" salad-type diets traditionally used in zoos and by private keepers. Whilst there is no doubt that many commercially available diets allow their users to keep and breed various iguana species successfully I feel it is short-sighted to condemn more 'natural' diets as simply inadequate. Indeed, the only successful captive breeding of *Iguana delicatissima* published to date occurred in the British Isles using a rich and varied diet of predominantly leaves and a few fruits. The reluctance to adequately explore varied 'natural' diets seems to be a recent North American prejudice (Frye and Townsend don't even mention commercial diets in 1993) and is perhaps a reflection of the veterinary emphasis in the chapter rather than a balanced consideration of international progress in iguana husbandry and diets.

Interestingly the partially European authorship of the following chapter, *Husbandry and Management*, expresses their own doubts as to the wisdom of using exclusively commercial diets. They go on to provide useful information on developing a natural-type diet for captive iguanas as well as extensive recommendations on indoor and outdoor accommodation, successful breeding, incubation of eggs, and the optimal rearing of babies.

The remaining five chapters (half of the book) focus upon health and veterinary issues, namely; *Clinical Evaluation and Diagnostic Techniques; Infectious and Non-infectious Disease; Drug Dosages and Chemotherapeutics; Anaesthesia and Surgery; and Diagnostic Imaging*.

Whilst all are of great use to veterinarians, the first two chapters are also of particular interest to zoo and private iguana keepers. These chapters provide, respectively, detailed technical but readily understandable explanations of the processes of health assessment and diagnosis; and of the more common ailments of the ani-

mal in captivity including viral, bacterial and fungal infections, internal and external parasites, nutritional and reproductive disorders, and environmental and stress related injuries and illnesses. The latter three chapters are unlikely to be extensively thumbed by anyone other than veterinarians but may come in very useful to the private iguana keeper whose local vet lacks either experience or confidence with such a comparatively exotic patient.

Each chapter concludes with its own, invariably extensive, reference list and the whole book benefits from a detailed index. There are sixteen pages of colour plates, the vast majority of which show injuries and illnesses or the treatments and surgery necessary to correct them. The exception to these veterinary images is a handful of 'typical iguana' shots demonstrating sexual dimorphism, including femoral pore size, and a sequence of what appears to be some really very poor iguana accommodation. This is the only really disappointing aspect of the book. Though half the text is dedicated to describing the wonderful and diverse habi-

tats, complex behaviours, varied diet, and demanding husbandry of this photogenic lizard there is no visual record of any of this wonderful research or diagrammatic or photographic guidance to setting up the complex accommodation described in Chapter 5. Such high quality and up to date text surely deserved photographs of relevant subject matter and equally high quality.

Biology, Husbandry, and Medicine of the Green Iguana is an impressive compilation of information about every aspect of green iguanas by an equally impressive line up of researchers. Unless you are a devoted iguana keeper or veterinarian however, you are unlikely to need such a detailed monograph on your bookshelf, but for those that fall within these categories, this is an invaluable reference.

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