

any work which is destined to
reference for the herpetologists
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Lizards. Manfred Rogner. (1997). 328 pp. + 318
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£93.00 (cloth).

The last fifteen years or so have seen an enormous
increase in interest in the husbandry of captive reptiles.
There has also been a corresponding increase in the
number of books that inform us on how to keep and
breed them. This work by Manfred Rogner - which has
been translated from the original German edition by
John Hackworth - is the latest of these, but unlike many
others it is very good. It is very good mainly because
the information it contains is far less repetitive than
similarly targeted books and it also provides answers to
many questions about the husbandry of lizards that oth-
er books do not. Additionally, it describes species that
most herpetologists from the UK will be unfamiliar

with. It is a comprehensive account of the captive husbandry of selected species of lizards from all the major families in two volumes. Volume 1 deals with the Gekkonidae, Pygopodidae, Agamidae, Chameleontidae, and Iguanidae with additional chapters on *The Care and Husbandry of Lizards in the Vivarium, Feeding and Vitamins Minerals and Trace Elements*, and a useful chapter dealing with *Reproduction, Egg Incubation and Temperature Dependent Sex Determination*. Volume 2 concerns the Xenosauridae (crocodile lizards) Helodermatidae, Varanidae, Anguidae, Gerrhosauridae, Cordylidae, Lacertidae, Scincidae, Xantusiidae and Teiidae. There are further chapters on reptiles that are not lizards, the amphisbaenids, tuatara (Rhynchocephalia) and the crocodylians. Each volume has a species index and extensive bibliography, mainly derived from German language publications.

Family accounts begin with an introduction to the group as a whole followed by species accounts, with a format of (1) species distribution; (2) description; (3) habitat; and (4) lifestyle, husbandry and reproduction. The latter section invariably forms the largest part of the text. The geckos, lacertids and iguanids receive the most attention but there are substantial chapters on agamas, skinks, monitors and anguids. The section dealing with the African plated lizards is particularly comprehensive and informative. There are many good quality colour photographs, often of unfamiliar forms, although not all the species described have accompanying photographs. As far as I can tell, each photograph shows a typical representative of the species, unlike some other publications where the most wonderfully patterned or coloured individual that could be found is shown - such representations are of limited use.

Several husbandry aspects are discussed, for example UV requirements in lizards and the types of special lights that are available to deal with the problem. The failure of fully developed embryos to break free from their eggshells is dealt with in some detail and several interesting hypotheses as to why this should occur presented. The author points out that such failures are much rarer in the wild (although generally I do not see how one could easily determine this). He refers to studies on the alligator, which indicate that during development, the shells in the eggs of natural nests become increasingly thin and fragile. He goes on to say that corrosion of the eggshell by carbonic acid (a product of exhaled carbon dioxide combined with water), in addition to the metabolic products of bacteria and fungi

living in the ground, are important factors in rendering the eggshell thin enough for the hatchlings to break free. Relatively dry captive incubation media with low bacteria counts may lack these influences.

As far as I can see there are no major problems with this impressive work, and any criticisms are relatively minor. However, it does seem that research which may have important implications for animal husbandry, takes far too long to be included in this type of publication. For example, in the chapter on general husbandry no mention is made of the importance of stress in the husbandry of captive lizards (Chizar, Murphy & Smith, 1993), in particular its effects on reproduction and longevity (Greenberg, 1990); or an 'emotional fever' in lizards as are result of being handled (Cabanac & Gosselin, 1993).

The inclusion of the crocodiles, amphisbaenids and the tuatara adds interest to the work, but the frequent reference to the tuatara as a lizard may confuse newcomers to herpetoculture, despite its correct classification as a rhynchocephalian at the beginning of volume 1. Of course unlike lizards, the tuatara is a true diapsid, which retains the jugal - quadratojugal bar in the lower arch of the temporal region of the skull.

Readers looking for detailed ecological information on lizards will be disappointed, but then this is not the primary aim of the book. The author claims that his work fills a gap in the herpetoculture of reptiles, and I agree with him. It is a well balanced, comprehensive guide for anyone who is interested in the husbandry of lizards. Much of the information appears to be based on the authors own experiences, although compiling all the relevant information must have been a daunting task. Manfred Rogner is to be congratulated for a scholarly work which is destined to become the standard reference for the herpetoculture of lizards.

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