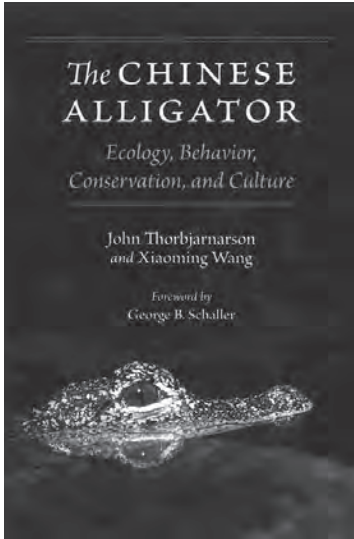

BOOK REVIEWS

The Chinese Alligator: Ecology, Behavior, Conservation and Culture

John Thorbjarnarson and Xiaoming Wang
2010, John Hopkins University Press, 265 pp.



When it comes to rare and endangered animals, there is usually a good selection of literature available. Unfortunately the same cannot be said for the Chinese alligator. Its scarcity in the wild and the fact that its home range is well within the confines of Red China has probably contributed to this. The lack of information on this animal becomes all too apparent once you start to read this book.

The authors, Xiaoming Wang and the late Thorbjarnarson, had unique access to this animal in both the wild and in captivity within the captive breeding centres set up in China to help save the Chinese alligator from extinction. They have compiled what seems like every available known detail that there is within this book. Due to the lack of research in the wild because of its scarcity, the American alligator is continually referred to throughout the book for comparisons.

The first chapter deals with the authors' personal experiences of visiting the last remaining sites where wild populations still occurred and the captive breeding centres set up to help save the

species. They paint a pretty bleak picture of this animal's fate in the wild which sets the general tone of the book. The account details the lack of suitable remaining habitat and sustainable wild populations. The second chapter covers crocodylians in general and conservation efforts around the world, again, using the American alligator as a comparison.

From here things start to go off a little on a tangent. Possibly due to the lack of information on this species or because the authors wish to give readers a better feel for the last remaining areas where they can be found, the next couple of chapters cover the history of crocodylians in China and the possibility of alligators being the origin of the mythical dragons of folklore, both western and eastern. The authors discuss the alligator's place in Chinese culture throughout history and its association with various superstitions and myths. As these chapters account for more than one fifth of the actual text, I think they would probably have served better towards the end of the volume and seem to hold you back to getting to the "meat" of the book.

After this the authors finally get down to the finer details of the alligator's ecology and behaviour. This chapter gives us an in-depth and detailed account of the Chinese alligator both in the wild and within the captive breeding centres. The information is concise and well documented, covering everything from reproductive strategies and hibernation to population dynamics and diet. The only disappointment with this chapter is the lack of detailed colour photographs. With such an enigmatic and rare species it is unfortunate not to have captured it visually. Even a simple physical overview of the animal, with colour plates, would be a much welcomed addition.

The final two chapters deal with the existing habitat and population status, and the outlook for this species in the future. Again, these subjects are well covered and comprehensive, detailing existing problems and barriers to conservation efforts and laying out possible strategies for future efforts.

While the future for this animal is bleak, the authors remain optimistic but also realistic, detailing potential for future success. Chinese alligators are on the brink of extinction in the wild, but there

are healthy captive populations. The authors point out that their future in the wild will depend on the ability to provide suitable habitat.

This book is probably the most up-to-date and informative account of Chinese alligators available. While it may not appeal to every reptile enthusiast or herpetologist, it is an incredible resource for anyone dealing with or interested in crocodylians or conservation. The Chinese alligator is a prime example of a species that can come back from the brink of extinction if given the chance and there are valuable lessons to be learned from the account of this species through this book in relation to all endangered species. The inclusion of detailed specimen pictures in future editions would be a welcomed enhancement to the book.

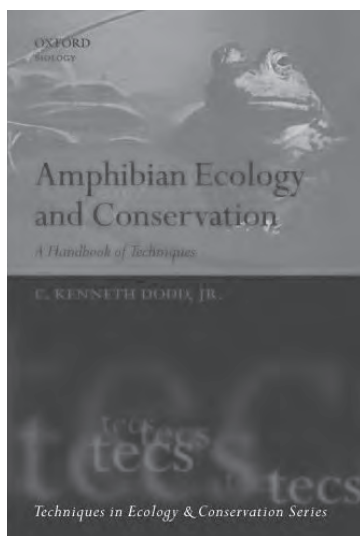
JAMES HENNESSY

Reptile Village Zoo, Gowran, Co. Kilkenny, Ireland.
james@reptilevillage.net



***Amphibian Ecology and Conservation:
A Handbook of Techniques***

C. Kenneth Dodd
2009, Oxford University Press. 556 pp.



When Heyer et al. (1994) arrived in press it was a perfectly poised manual for all amphibian biologists and ecologists. It became an important purchase for people designing research experiments for amphibians. I read it cover to cover and put its methods into action. A decade later *Amphibian Ecology and Conservation: A Handbook of Techniques* has arrived. Kenneth Dodd states that the book is not a replacement for Heyer et al. (1994) but prefers to consider it an addition to it, presenting modern methods that supplement it.

When browsing through the contents it is clear that *Amphibian Ecology and Conservation: A Handbook of Techniques* brings together a distinguished, international group of amphibian ecologists to provide a state-of-the-art review of many of the newer and exciting techniques used to study amphibians, investigate their populations and determine their conservation status.

The book is divided into five parts. Part 1 discusses the study of amphibians and how to design clear and focused research objectives. Part 2 includes chapters on larval morphology, sampling, project design, dietary analysis and water quality. Part 3 includes chapters on marking, egg mass, egg counts, diet, home range and tracking movements and terrestrial experimentation. Part 4 includes chapters on amphibian populations, sampling methods for capture and detection, trapping, area-based survey methods, rapid assessment, auditory survey methods and measuring habitat covariates. Part 5 addresses amphibian communities and provides chapters on estimating diversity, landscape ecology, conservation and management of amphibian populations.

I found the most useful chapters to be the modern technique summaries such as landscape ecology, larval sampling and biochemical analysis. Methods have raced ahead over the years in these areas and it is a welcome introduction to have huge swathes of literature summarised for easy reading and reference. I especially enjoyed the chapters on the latest statistical approaches in amphibian field ecology, the use of models and the interpretation of their results. Much of this information is scattered in the scientific literature or not readily available. The chapter is also co-written by John Nichols – one of the leading experts in the topic. I was particularly

impressed by the choice of authors invited to edit each chapter.

There are a few typographical errors in some chapters, but hardly worth criticising as they do not detract from the content at all.

This book was written as a reference more than a manual for graduate students, researchers and conservationists, and it will likely serve this purpose well. It is succinctly written and its English is accessible for those who do not come from an academic background. A useful glossary is also provided.

I will be recommending that students use both Heyer et al. (1994) and Dodd as there are still many useful undergraduate techniques in Heyer et al. (1994) that are not covered in, or preplaced by, Dodd (e.g., collection and tissue preservation,

specific to amphibians). Together, considering the two texts side-by-side will save painstaking amounts of literature surfing for any amphibian biologist and provide essential cornerstones for all amphibian research programmes.

REFERENCES

Heyer, W.R., Donnelly, M.A., McDiarmid, R.W., Hayek, L.C. & Foster, M.S. (1994). *Measuring and Monitoring Biological Diversity: Standard Methods for Amphibians*. Washington: Smithsonian Institution Press.

TODD R. LEWIS

Westfield, 4 Worgret Road, Wareham, Dorset, BH20 4PJ. ecolewis@gmail.com
