



BOOK REVIEW

Tortoise Husbandry and Welfare

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Tortoise Husbandry and Welfare. 2024. Jane Williams. CABI, Wallingford, UK. 304 pp. Paperback – ISBN 9781800623712. \$65.00. Hardback – ISBN 9781800629561. \$195.00.

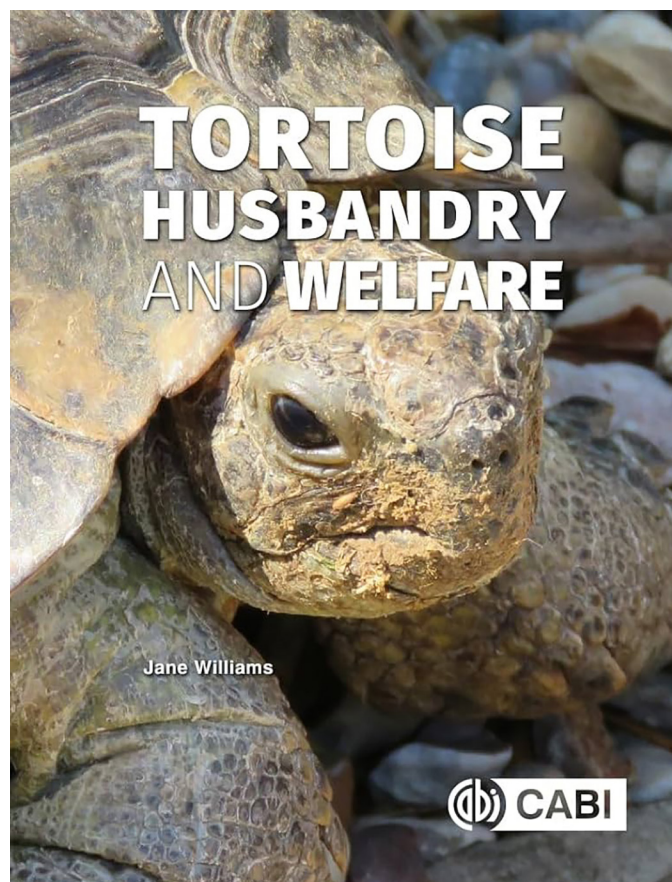
For anyone who keeps tortoises, works with rescue and rehabilitation, or advises owners (veterinarians, behaviorists, shelter staff), a potential problem arises in that few books on the market focus on all aspects of tortoise husbandry, although previous authors (e.g., Wilke 2000) have attempted to ensure that this information is available. Other authors have taken a different approach and focused on single species, such as Hermann's Tortoise (*Testudo hermanni*) or the Red-footed Tortoise (*Chelonoidis carbonarius*) with targeted information (Wegehaupt 2009; Ebenhack 2012). Some of these more specialized books are now out of print and therefore the information is likely out of date, as our understanding of keeping chelonians has changed through time.

This recently released book titled *Tortoise Husbandry and Welfare* by Jane Williams aims to fill this gap in the market and provide a much-needed resource. Williams' monograph addresses the full spectrum of issues relevant to tortoise captive care, combining biology, physiology, environmental design, nutrition, health monitoring, species-specific requirements, welfare indicators, and ethical considerations. This makes it a valuable and up-to-date resource. Its main contribution is its integration of physiology, behavior, and practical husbandry: readers come away with not just a checklist of equipment they need to house their tortoises appropriately, but an understanding of why those items matter. The book's accessible style, photographed examples, and troubleshooting boxes make it usable in day-to-day care, while the welfare framework encourages longer-term, ethically aware stewardship.

The book is organized to move readers from foundational biology through the practicalities of designing and maintaining environments, to the specifics of diet, behavior, reproduction, and clinical welfare concerns. Williams opens with the essentials of tortoise biology including their ectothermic physiology and the consequences this has for metabolism, digestion, and immune function, and then uses that foundation to justify particular husbandry recommendations.

From there she addresses housing (both indoor and outdoor options), environmental control (temperature gradients, UV and visible-light requirements, humidity, and substrate choices), nutrition (species-specific dietary needs and how to present food), and the behavioral and social considerations that inform welfare. The practical chapters are supported by case examples and photographs, with the overall arc designed to scaffold understanding from "why" to "how."

Williams writes as a clinician and welfare professional with decades of hands-on experience and her voice is pragmatic and evidence oriented. Throughout the text she frequently links husbandry prescriptions to physiological mechanisms explaining, for example, how specific temperature regimes affect gut motility or how UV exposure underpins



vitamin D3 synthesis and calcium metabolism. That combination of practical know-how and physiological explanation is one of the book's real strengths: it helps readers understand that recommended practices are not arbitrary rules but responses to biological realities. Williams has a strong and well-known standing in the tortoise and reptile welfare community, and the book demonstrates her experience of treating clinical problems and observing long-term outcomes in rescued and privately kept animals.

Recognizing that tortoises are not one uniform group is crucial. Differences in habitat, climate, thermal needs, humidity, and feeding natural history are addressed in detail. This avoids a one-size-fits-all approach that is common in older or more generic care guides. Through the inclusion of ethics, keeper competence, long-term welfare, and psychological wellbeing rather than limiting the conversation to physical health is very much in line with modern welfare science (which places behavior, preferences, and quality of life alongside disease/injury).

Williams writes with an orientation toward evidence and practice, but readers should be aware of the limits of the reptile literature. In many cases, husbandry recommendations are derived from a combination of physiological principles, controlled studies on related species, and long-term observational evidence from rescues and collections. The book transparently mixes these sources: where experimental data exists, she cites them, and where data are thin, she draws on professional experience and consensus practice. This candid approach is helpful, but it also means that some recommendations (especially for rare or poorly studied species) will inevitably be provisional. Readers who need the latest scientific or experimental evidence for a specific species will want to complement Williams' synthesis with recent peer-reviewed articles.

Williams includes photographs that show enclosures, basking areas, and clinical conditions. These images are practical and rarely decorative. The layout favors clear headings, boxed protocols, and photographic examples, which helps readers locate information quickly. The prose is approachable without being oversimplified, and the text balances narrative explanation with bulleted lists and troubleshooting panels. This renders the book highly accessible, despite its large size, to those who require it most.

No single book can do everything. Although Williams covers a broad range of species and husbandry situations, the level of species-specific guidance necessarily varies. Owners of particularly unusual or highly endangered species should not treat the book as a substitute for species-specific husbandry guides or veterinary consultation. Additionally, although Williams makes a strong case for welfare assessment, readers seeking operationalized welfare scoring systems (scales with numerical thresholds suitable for research or regulatory inspection) will find the presentation more qualitative than quantitative. Finally, because new husbandry technologies (e.g., specific LED spectrums and automated environmental controllers) evolve quickly, some technical recommendations might require periodic updating as products and evidence change. However, Williams' physiological framing makes the assessment of new tools easier for readers.

In the scientific literature of herpetology, captive reptile welfare, and exotic veterinary care, *Tortoise Husbandry and Welfare* represents a significant step forward in combining multiple domains (behavior, physiology, nutrition, environmental science, ethics) in a species-focused manner. It fills a gap as many older books focus either on medicine (pathology, surgery) or are generalized care guides. Few integrate behavior, welfare science, and husbandry specifically for tortoises.

Overall, *Tortoise Husbandry and Welfare* is a rigorous, well-constructed, and timely contribution to the reptilian welfare literature. Its specialization on tortoises, its integration of environmental, behavioral, nutritional, medical, and ethical aspects, and its evidence-based approach cause it to stand out among recent texts. Although some practical recommendations might be harder for non-professional keepers to implement, and quantitative welfare metrics could be more fully developed, these are small caveats in a work of substantial importance. For anyone concerned with high-quality tortoise care and welfare (veterinarians, rescue centers, sanctuaries, and serious hobbyists) I highly recommend this book.

Literature Cited

- Ebenhack, A. 2012. *Red-footed Tortoises in Captivity (With Notes on Yellow-footed Tortoises)*. [ECO/Serpent's Tale NHBD, Lansing, Michigan, USA.
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