

Made in United States of America
Reprinted from **MARINE MAMMAL SCIENCE**
Vol. 17, No. 3, July 2001
© 2001 by the Society for Marine Mammalogy

THE BOTTLENOSE DOLPHIN: BIOLOGY AND CONSERVATION. J. E. Reynolds, R. S. Wells and S. D. Eide, eds. ISBN 0-8130-1775-0. University of Florida Press, Gainesville, FL. 2000. 288 pp. \$34.95

As one of the cetacean species that have been most intensively studied, both in the wild and in captivity, the bottlenose dolphin deserved a book like this one by Reynolds, Wells and Eide. Few other marine animals have been the subject of so much celebration, fascination and, alas, speculation by the general public and by members of the scientific entourage. Yet, it is only in the last 30 yr or so that research has started to provide insight into what is likely to be a bottlenose dolphin. Research in the wild has been pioneered by one of the authors (RSW) in the coastal waters of Florida, where a bottlenose dolphin community has been the focus of the world's longest running study of wild dolphins. Such an extensive field experience with the animals provides additional insight to the encyclopedic knowledge that all authors convey into the book, resulting in a truly incredible concentration of authoritative bottlenose dolphin data.

The book covers issues ranging from physiology and evolution to behavior and cognition, providing a remarkable, updated synthesis of what should otherwise be laboriously dug out of thousands of scientific papers. Although being centered around bottlenose dolphins, the book also discusses themes of general interest, such as wildlife conservation and stock management—issues that are treated with insight and sensibility.

One of the declared attempts of this comprehensive review book, impressively documented and enriched by literature quotes, is to dismantle die-hard myths about dolphins by facing them with sound science. The authors acknowledge that mystical views have contributed little to our understanding of dolphins—let alone to dolphin conservation—and suggest a more pragmatic approach based on what we actually do know about the animals, once expectations and emotional feelings have been removed from the scene.

What remains is the multifaceted portrait of a highly evolved, amazing marine mammal with skills and evolutionary adaptations that defy imagination and fill scientists with awe. It is not necessary, it seems, to force bottlenose dolphins into being some supernatural or super-intelligent creatures: what we know about these animals as members of this very world should suffice to value them. As the authors put it “the remarkable suite of dolphin adaptations that endear the species to people . . . is truly no less wonderful and presents no less cause for admiration than the presence of intelligence.”

The book, however, tends to confuse animal welfare issues and odd “new age” theories on dolphins to a level that may mystify some readers. The first chapter opens with a discussion apparently aimed at discrediting animal right activists, at times with a vein that does not match the strict scientific tones used in most other parts of the book. Although the informed reader can easily identify the kind of animal right activists that are addressed by the authors, some readers may feel that the arguments of those who dislike the captive dolphin industry, as well as the points of yet another category of animal welfare advocates, have been poorly represented. The authors adduce exhaustive arguments in favor of the keeping of captive dolphins, but they consider only a few trivial anti-captivity issues. The ethical implications of keeping wild, evolved animals in settings that have little to do with their natural environment, and

the subtle educational merits of displaying any animal as separated from its own habitat, for instance, are not given much consideration. Neither it is sufficiently stressed that most facilities in the world, and an increasing number of them in "developing" countries, do not engage in sound science or educational programs, but largely focus on business. Thus, even the most informed opposers of captivity may end up being depicted as either ignorant or bizarre people, or they risk being confused with animal terrorists by a book that has otherwise many qualities.

Another minor bias in the book lies in a slightly "inshore" and "anglocentric," so to say, perspective on the behavior of the animals. This is certainly due to the excellent studies conducted in North America, South Africa and Australia, and to the abundance of related information (while data from other areas and from offshore populations are comparatively poor). Still, some researchers may remark that what is often referred to in the book is the behavior of bottlenose dolphins from shallow U.S. and Australian coastal waters. The feeding ecology and behavior patterns of bottlenose dolphins in other areas—particularly those living in deep inshore and offshore waters—may or may not match the descriptions found in the book by Reynolds *et al.* (this applies, for instance, to the descriptions about the patterns and frequency of near-surface feeding-related behaviors—activities that are infrequently or never observed in some study areas). The fact is, the bottlenose dolphin is such a flexible animal, it has adapted to so many different habitats, and it has been studied so unevenly in the world's oceans—with preference for shallow inshore areas—that it is hard to make generalizations about its complex and varied behavior.

While presenting a comprehensive review on what is known about bottlenose dolphins, the book stresses how little attention has been given so far to the proper management of natural habitats where the dolphins live. Threats, including bycatch and intentional takes, contamination by xenobiotic compounds that accumulate in dolphin tissues through biomagnification, direct disturbance, and other conservation issues are treated with appropriate emphasis. Comparatively less emphasis is given to decreased food-prey availability due to the combined effects of overfishing and habitat degradation—an issue that may have much to do with bottlenose dolphin decline in some areas heavily impacted by human activities.

All in all, the main reason why the work by Reynolds, Wells and Eide may be the subject of critical comments such as the ones above is that it is such a wide-angled, remarkable contribution. It touches so many issues, from strict science to ethics and conservation, that it seems obvious that some may disagree or argue on a few points. It must be acknowledged, however, that the authors have put much effort into keeping an unbiased perspective and providing the reader with the whole range of theories on most issues. A few personal and authoritative views showing up here and there—always with great politeness and honesty—contribute to making the book more enjoyable and lively.

"The bottlenose dolphin: Biology and conservation" is generally easy to read and devoid of technicalities. Indeed, technical parts such as some on physiology/anatomy, life history strategies, or stock issues may be relatively harder to digest to the non-specialist, but marine mammal professionals will experience great pleasure in reading the book throughout.

Probably the most comprehensive single piece of work ever done on bottlenose dolphins, the book represents a milestone for all those who are interested in cetaceans, and for marine mammalogists, educators, and students it stands as an essential reference to be kept at hand in the nearest book shelf.

A number of beautiful black and white illustrations by dolphin artist Marya Willis-Glowka, and color photographs including many by National Geographic photographer Flip Nicklin, pleasantly complement the text.

GIOVANNI BEARZI, Tethys Research Institute, % Venice Natural History Museum, Santa Croce 1730, 30135 Venezia, Italy; e-mail: bearzi@inwind.it.