

PALM LITERATURE

PALMS, SENTINELS FOR AMAZON CONSERVATION. Michael Goulding and Nigel Smith. Amazon Conservation Association and Missouri Botanical Garden Press, St. Louis, Missouri. 2007. ISBN 978-9972-2974-0-3. Price \$35.00. Softcover. Pp. 356.

For those of you who always loved the wetland palms of the Amazon Basin, this is a book you will want. For those of you who, like I, never gave a second thought to the wetland palms of the Amazon Basin, this is the book we need. Goulding and Smith's new book brings to life fascinating palms seldom seen outside their soggy Amazonian home or, for that matter, in the pages of most palm books. With brilliant photography and an impressive 45-page bibliography, the authors bring their considerable experience in Amazon ecology and biogeography to bear on the palm ecosystems of river margins, swamps, flooded forests and mangroves.

The book begins with a chapter that introduces the region and history of palm studies and another that reviews the nine different kinds of wetlands in the Amazon Basin in which palms occur. The fifteen chapters that follow focus on the palms, with each genus given its own chapter (with the exception of *Socratea* and *Iriartea*, which are treated together). Each chapter includes a distribution map and breath-taking photographs of palms in their natural habitat. Predictably, much space is devoted to the most economically important species of *Mauritia* and *Euterpe*, but chapters on genera, such as *Manicaria*, *Mauritiella*, *Leopoldinia* and *Desmoncus*, review the current knowledge of these lesser-known palms. The palm chapters are followed by a chapter that reviews the amazing animals that live in, on and among the palms and by a chapter on human influence on palms and their habitats. The book ends with a chapter on the need for palm conservation, although the authors

noted in the introduction that "At present no Amazonian wetland palm species is faced with extinction and it is hard to imagine this would be a problem in the next few decades." Given that, one wonders why the conservation flag is waved so prominently in the book's title.

This book is significant in that it is the first book to focus on the wetland palms of the Amazon and their roles in riverine ecosystems. It is a synthesis of ecology, geography and ethnobotany, as well as primer on the palms that have complex ecophysologies that allow them to survive periodic inundation. These are remarkable palms that are terrestrial in some months and aquatic in others, and no other book treats them so beautifully. The pictures lure us in, but the hook is the very real discussion on how water quality, sediment load and flood periodicity, among other factors, influence the distribution palms in these very specialized habitats.

My criticisms of the book are minor. I would have appreciated a map of major river systems that are discussed in the text. I was also puzzled by statements such as, "In the Rio Negro Basin, *Leopoldinia piassaba* is most abundant in the left-bank blackwater tributaries." Why the left bank and not the right? I am not fluent in river science, so the book occasionally left me in its wake. The authors frequently confused endosperm, endocarp, mesocarp and pericarp in their discussions of palm fruits, but these errors can easily be remedied in a second edition.

The book does not shy away from the technical aspects of wetland ecology, but it is awash with beautiful and striking photographs. The photographs clearly separate this book from all others on Amazon palms. It was as much a pleasure to peruse as it was enlightening to read.

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