

## Book Review

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***Lichen Flora of Sundarbans Biosphere Reserve, West Bengal.* By T. A. M. Jagadeesh Ram, G. P. Sinha and K. P. Singh.** First edition, 2012. Dehra Dun, India: Singh Mahendra Pal Singh Bishen. Pp. 284, numerous keys, colour illustrations and drawings. Page size 231 × 157 mm. ISBN 978-81-211-0812-6 Hardcover. Price: £86.99 plus p&p from [www.nhbs.com](http://www.nhbs.com) or £31.16 plus p&p from <http://www.abebooks.co.uk>.

It is nice to see the publication of a tropical lichen flora and it is most welcome. This book is a result of a three year study of one of the great mangrove swamps of India with a good population of Royal Bengal Tigers! Although most of the new species and records for India and West Bengal found have been published previously, this book includes a description of one new species (*Pertusaria sunderbanensis* Jagadeesh & G. P. Sinha), three new synonyms (*Opographa bengalensis* Upreti & Ajay Singh with *Hysterium pulicare* Pers. ex Fr., *Parmentaria mamillata* Ajay Singh with *Pyrenula astroidea* (Fee) R. C. Harris, and *Pyrenula subacutalis* Upreti with *P. acutalis* R. C. Harris) and two species new to India. A total of 167 species are included but some are still undescribed and are not given specific epithets. The introduction summarises floristics, distribution and ecology including a list of lichens indicating the regions in the reserve where they occur and on which tree species they were found. The generic and species descriptions are full, with synonyms and lists of specimens examined. Photographs of 154 species are in colour but some are poor due to inaccurate registration in printing in the copy which I saw but there are clear line-drawings of spores of 66 species. Keys to families which are arranged in the book in order according

to Ainsworth's *Dictionary of Fungi* and each account has a key to genera and then to species. Thankfully there is a good index and the work is well referenced. Many lichenologists believe that the practical use of families for identification is limited. Hence, some readers might find the key to families challenging until they become familiar with some of the main genera. For example, the second couplet reads somewhat obscurely "Ascomata unorganized, semi-organized or apothecoid, ascolocular; asci strictly bitunicate" versus "Ascomata well organized into true apothecia or perithecia, ascohymenial; asci unitunicate or bitunicate". But usefully, a small number of non-lichenized ascomycetes that could be confused with lichens are added, perhaps following the informal tautological definition of lichens being those organisms which are studied by lichenologists. It is good to see, for example, *Hysterium* being included here as the genus is often overlooked by mycologists but noticed by lichenologists. This is a useful guide to lichens occurring in mangroves and hopefully will encourage other similar studies in other parts of the world as this wonderful pantropical habitat is under a severe worldwide threat.

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