

Preface

The urge to say something, share useful knowledge upon a subject, is matched perhaps, by the urge to know something on a subject. It is basically these urges that have served as impetus to write this book on Conchology, the study of shells produced by living creatures called molluscs.

Conchology is concerned with study of shells; and Malacology, with shells and creatures within (molluscs). As compared to Conchology, Malacology necessarily involves much greater scientific and technical literature. At times, these factors render such study insipid and unappetizing to many. Conchology, to a great extent, involves collection, classification and the appreciation of the structure and designs of shells. Therefore, at least to some extent, this is a recreational activity for those who seek intellectual indulgence in these wonderful objects of the sea. This book is, therefore, an attempt to present the shells of Goa to scientific researchers and amateur shell collectors alike, so that they find in these wonderful objects of the sea, something useful and interesting in their respective pursuits. The book seeks to tie knots between popular science and research, science and hobby, and science and art.

This book is intended not only as a field guide to shells of Goa, but also the presentation is aimed to offer a delightful learning experience to an amateur shell collector. With this objective, the photographs of the shells presented in this book are, as far as possible, 'in situ' photographs of shells in the same condition as actually found on the beaches of Goa. Shell collection offers a very meaningful and informative pursuit to all those who seek pleasure in collecting these beautiful colourful objects during their leisure hours. From children to aged and from amateurs to professionals, people from various strata of the society enjoy shell collection. The thrill of finding the desired shell is sometimes compared to the thrill of a hunt. The book will serve those who desire to learn science without any previous knowledge of the subject, with a small parcel of shells that they collect from the seashores of Goa.

Quest to bring science out of the laboratories and research papers of the academia into the lives of people has guided writing of this book. The main challenge in presenting this book was to achieve a balance, so that the presentation is not too

scientific and technical to make it unexciting to the amateur shell collector or bereft of scientific classification and references, to make it uninteresting to academics. The focus of the book is **shells** and not molluscs. The objective of this book is to introduce shell heritage and inculcate and encourage curiosity and scientific interest, not just among conchologists, but also local and tourist beach goers.

The book is divided into five chapters. Chapter 1 is aimed at familiarizing readers to shells and molluscs, organisms that produce shells. Simple, non-technical language with glossary of some scientific terms will help readers in this effort. Goa, though quite famous for its sun, sand and sea, is also a shell collectors' paradise. Chapter 2 introduces Goa and her shell habitats, with picturesque coastline and vibrant ecosystems, to the shell collectors. Identification of shell specimen is presented in Chap. 3. As written earlier, the aim is to help an amateur shell collector with identification of the shell specimen.

Shells have inspired not only scientific research but also art and culture. The colours, the design and the ornamentation have served as source for art, culture and even architecture. Chapter 4 on shell art and shell craft dwells upon the status of shell art and shell craft in Goa. However, I wish to point out that I do not subscribe or encourage intense shell collection or killing, harming of any individual mollusc for its shell.

Chapter 5 deals with some interesting facts about shells such as importance of shells and literary work related to shells and their writers. Lastly is an appendix that gives a collection of some common quotes on shells. Finally, the book concludes with a glossary explaining the technical terms used in the text.

A part of this book has received small amount of financial support from Department of Science, Technology and Environment (DSTE), Government of Goa. I wish to acknowledge Government of Goa and Mr. Levinsen Martins, and Mr. S. Kotwale Directors, DSTE for the support.

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Rod LeGear, Vice President, Kent Archeological Society, shared their work on Shell Grotto and also forwarded photographs of the Grotto for publication in the book. I sincerely acknowledge Kent Archeological Society and Rod LeGear for this.

Darryl Pereira, Managing Director, Reira Ventures, Saligao Goa, contributed lovely photographs of some beaches of Goa such as Colva, Agonda, Chapora, Vagator, Uttorda and Betalbatim. My friend, Dr. Prabha Devi from National Institute of Oceanography (NIO), helped me in collection of sea shells. Mr. Carlo Eurico Santana da Silva shared information and photograph of his house with shell windows, '*Sat Buruza ghor*'. Col. Leena Gurav introduced me to Assam Rifles Museum and traditional dress of Naga tribes with cowries.

I must also express my gratitude to my colleagues at Centre for Environment and Natural Resource Management (CENRM) and SRUJAN for their immense support to the project. Field assistance from Mr. J Kandolkar in collection of shells and laboratory assistance from Bharati in cleaning of shells will be remembered. Many people have helped me in writing of this book. It is not possible to acknowledge each one by name here; however, their contribution is much appreciated.

As the book was going through its final stages of production, we were deeply pained at the untimely and sudden death of my brother-in-law, Satish Sonak, on 7th April 2017. Satish was a constant source of encouragement and support. The book has one picture of a model of a Goan window with shells, presented to me by Satish and his wife Harshada. Thank you, Satish and Harshada.

It was my husband, Mahesh, who inspired me to write this book. From beginning to end, Mahesh's support and motivation to this endeavour is immense. My sister-in-law, Sushama Sonak, with her vast experience at National Book Trust, New Delhi, helped me with several interesting shell facts and also critically edited some of the chapters. Writing of this book follows nostalgic memories of our son's, Eeshan's, childhood days. Mahesh and I enjoyed watching him collect shells on various beaches of Goa, during his childhood. Even today, he is fascinated by sea shells, what he calls 'wonders of the sea'. It is he who actually began writing of this book. I dedicate this book to Eeshan and to these lovely memories.

Panaji, India

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A Guide to Identification

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