

PREFACE

Being the student of Zoology in my graduate and postgraduate days, I had always felt the need for the books that deal with Physiology in exhaustive detail that too on comparative basis of different chordate class. It has always been the dream of Life science students to have a concise notes or description of different physiological phenomena on a comparative basis among different chordate class. The urge of having something like this became even more prominent when I became a faculty and entrusted with the task of teaching and training students with different aspect of chordate physiology and anatomy. Present book is the fruition of the similar urge and need that has motivated me to write something on comparative physiology of chordates that can provide the students of biology a one-stop-solution to chordate biology so that they do not have to scan and flip through the number of different books to learn and educate themselves.

This book has laid an emphasis on those topics which are important but nevertheless ignored or are not given due space, like mechanism of locomotion along with locomotory organs, different theories approving or disapproving the phenomena of locomotion are treated as a separate chapter to provide in depth knowledge to the reader. Similarly, lateral line system is dealt in considerable detail as separate section of the chapter dealing with the nervous system. Whole physiology is described in light of evolution and development to provide better understanding of the phenomena.

Science is a dynamic discipline, every now and then changes keep on happening sometimes making older theories redundant and giving altogether new perspective to the long established theory and phenomena. Keeping this in mind, book has latest updates on the chordate physiology research (2013-14), along with the back references and citations for better understanding of different physiological phenomena.

The book is written in simple language and different physiological concepts are explained in easy to understand manner for readers from non-science background as well. I had tried with the best of my ability and competence to present the work in holistic and comprehensible manner but science is a collective activity and readers are welcome with their constructive and creative inputs to make this endeavor a grand reality.

The current work has isolated me from my family, friends, sometimes at rather critical periods, and it is indeed a special pleasure and privileged opportunity to acknowledge their patience and forbearance particularly my better half, who thankfully did not turn into a 'bitter-half' because of my over indulgence with the book and above all my grown up son, whose incredibly innocent and cute activities I had missed all these times.