

Preface

Discovering and organizing the diversity of life on Earth (the "natural system") are some of the greatest scientific undertakings of mankind. Students of diving beetles have benefited from some of the best historical systematists who built a strong foundation for our current generation. Study of diving beetle systematics has progressed dramatically in the past several years with great numbers of new species described, many from habitats only newly discovered to have diving beetles. Fortunately, modern phylogenetics using DNA sequence data and sophisticated analytical techniques has made the evolutionary history of diving beetles more accessible, and a natural classification based on their phylogeny is being constantly improved. Organization and improvements to the historical nomenclature have been largely completed. Finally, much has been advanced about the potential utility of diving beetles for studies of biogeography, evolution, community ecology, macroecology, chemical ecology, and sexual strategy evolution. Given all this, it seemed to us a good time to summarize the known world diversity of the group in a book form.

Systematics knowledge is acquired over long periods of time, and changes are to be expected as new taxa and characters are discovered. We expect that this book is not (and should not be) a final word on the study of dytiscid biodiversity. Rather, we hope it will inspire further research and testing of the systematics conclusions presented here. Also, this is a large assemblage of information to gather, and it is likely that there are errors or omissions that we hope can be forgiven. A number of great diving beetle systematists has inspired us, including but not limited to Frank and John Balfour-Browne, Henry Fall, Felix Guignot, John LeConte, Robert Roughley, Maurice Régimbart, David Sharp, Paul Spangler, Frank Young, and Alois Zimmermann. To them and other pioneers we are ever grateful.

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