

A REVISION OF THE AUSTRALIAN GYRINIDAE.

By GEORG OCHS,
Dachau, Germany.

Determination of Australian Gyrinidae is difficult. Publications on this family are very scattered and nowhere is there a comprehensive paper on this fauna. There are two handbooks on Australian insects,¹ but in both the Gyrinidae are treated only cursorily. In the Catalogue of the Described Coleoptera of Australia by George Masters (*Proc. Linn. Soc. N.S.W.*, Vol. 10, 1885) nearly all species named up to that time are registered, but without critical selection, and several species are recorded more than once under different names, even in different genera. In the *Coleopterorum Catalogus*, Pars 21, 1910, Ahlwarth repeats many of these mistakes, as at that time the complicated synonymy of several Australian species was not settled in a satisfactory manner.

In order to relieve this situation, I intended to make a study of the Australian species of Gyrinidae many years ago, and my request for material was answered generously by the Australian museums, which placed at my disposal the specimens of the family represented in their collections. Unfortunately, the material assembled at that time was not sufficient, and I was forced to delay my task until 1938, when, through the kindness of Dr. P. J. Darlington, junior, I received for study a very numerous collection of Australian Gyrinidae captured by him during the Harvard Expedition, 1931-1932, now in the Museum of Comparative Zoology at Harvard College, Cambridge (Massachusetts).

This material, augmented by supplementary series from other collections, allowed me to undertake a thorough revision of the Australian representatives of the family, the accomplishment of which was again delayed, as war arose, and could be finished only now despite many difficulties.

The present paper comprises all species of the family known to occur on the Australian continent and the adjacent islands, except those which are recorded from these countries evidently in error. The keys will enable the student to make correct determinations of genera and species, and every species is furnished with, I believe, a rather complete bibliography, by which I hope all synonymic questions will be settled in a satisfactory manner. All records of Australian Gyrinidae, which came to my knowledge, are recorded, thus illustrating the distribution of the different species, and in an appendix are discussed zoogeographical and phylogenetical questions in connexion with the Australian gyrinid fauna.

The author makes acknowledgments to all those by whose assistance he was enabled to make this study, especially to Dr. P. J. Darlington, jr., of the Harvard College at Cambridge, Massachusetts, for the specimens collected during his trip to Australia in 1931-1932. Moreover, I am greatly obliged to the authorities of the Queensland Museum at Brisbane, the Australian Museum and the Macleay Museum at Sydney, the South Australian Museum at Adelaide, the British Museum in London, the Naturhistoriska Riksmuseet at Stockholm, the Deutsches Entomologisches Institut at Blücherhof, and many others for loan of material and other kindnesses. I am especially indebted to Prof. Richter and Dr. Elli Franz, of the Senckenberg Museum at Frankfurt-on-Maine, for preservation of my collection, as without their intervention the latter would have been probably lost by the events of the war, in which case I would have been prevented from further study of the family.

¹Froggatt, W. W.: *Australian Insects*. Sydney, 1907.

Tillyard, R. J.: *The Insects of Australia and New Zealand*. Sydney, 1926.