



Tettigarcta crinita Dist. Female. From Australia
Enlarged

R. Stenton, photo

(frontispiece)

INSECT SINGERS

A NATURAL HISTORY OF THE CICADAS

BY
J. G. MYERS

SC.D.(HARVARD), M.SC.(N.Z.), F.E.S.
 LATE 1851 SCIENCE EXHIBITION SCHOLAR FOR NEW ZEALAND

With 7 Plates and 116 Text Figures

He pai aha koia taku pai
 He noho noa
 Piri ake ki te peka o te rakau
 E inaina noa ake
 Ki te ra e whiti nei
 Me te whakatangi kau i aku paihau.

Song of the *kihikihī* (cicada) in Maori fable.

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DEDICATED
TO
MY FATHER AND MY MOTHER

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PREFACE

It is an anomaly that to the cicadas, insects which have excited man's interest from the mists of antiquity to the present day, no comprehensive work in any language has yet been devoted. It is hoped that the present volume may fill the gap to the extent of showing firstly, what is at present known about the lives of these insects, and secondly what abundant new problems they offer to the general biologist and to the psychologist as well as to the entomologist who has in the past been too prone to content himself with an inadequate description of cicadas as cabinet specimens. That cicadas have interested workers in many widely different fields will be obvious from a glance at the bibliographical appendix.

Trying to produce a well-rounded natural history of these insects, of interest also to the non-specialist, and feeling with Appel, the Danish educationist, that "the historical method of progression, as opposed to the dogmatic, is . . . the best guide for an explanation in the sphere of living nature," I have endeavoured to follow a historical treatment. With this aim I have traced first the development and extent of man's interest in cicadas before science as we know it came into being; and have prefaced succeeding sections with a historical summary of our knowledge in that branch of *tettigology*. The latter term is proposed as a substitute for the hybrid "cicadology" which has been occasionally suggested and fortunately as frequently forgotten.

In conclusion I have a debt of gratitude to discharge to very many persons, and first of all to my wife, who has long co-operated with me in every branch of cicada study save the strictly morphological, and who has adapted and practised a method for recording the songs of cicadas, so that for the first time it has been possible to study them in a comparative and scientific manner. Chapter XX is almost entirely her work.

To thank specifically all who have been a source of inspiration and assistance to me would be almost impossible in this place. For the first I am indebted above all to Professor W. M. Wheeler. I owe

much also to discussion and correspondence with Mr. Nathan Banks, Professor C. T. Brues, Mr. W. E. China, Dr. G. C. Crampton, Mr. Wm. T. Davis, Mr. H. Haupt, Mr. G. V. Hudson, Dr. A. Jacobi, Professor H. B. Kirk, Dr. G. A. K. Marshall, Mr. F. Muir, Professor C. G. Seligman, and Dr. R. J. Tillyard. In matters connected with publication I have received much sound advice and help from Mr. W. S. Stallybrass and Mr. C. K. Ogden.

I have received cicadas from many entomologists and collectors in New Zealand and other lands; to name a few would be invidious; I am deeply grateful to them all.

Mr. M. Christoff and Mr. P. Uvarov have kindly translated for me papers in the Russian language, and Professor T. Esaki in the Japanese.

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J. G. MYERS

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	c. clypeus.	
	l. labrum-epipharynx.	
	fs. frontal suture.	
	gs. genal suture.	
	fp. frontal pit.	
	oc. median ocellus.	
	mp. maxillary plate.	
	lr. lorum	

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	es. epicranial suture.	
	dt. dorsal arm of tentorium.	
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	aem. anepimeron.	
	ms. median division of episternum.	
	e. eusternum.	
	tn. trochantin.	
	c. true coxa.	
	kes. katepisternum.	
	kem. katepimeron.	
	me. meron.	
	poa. postalare.	
	sp2. second spiracle.	

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	em. epimeron.	
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