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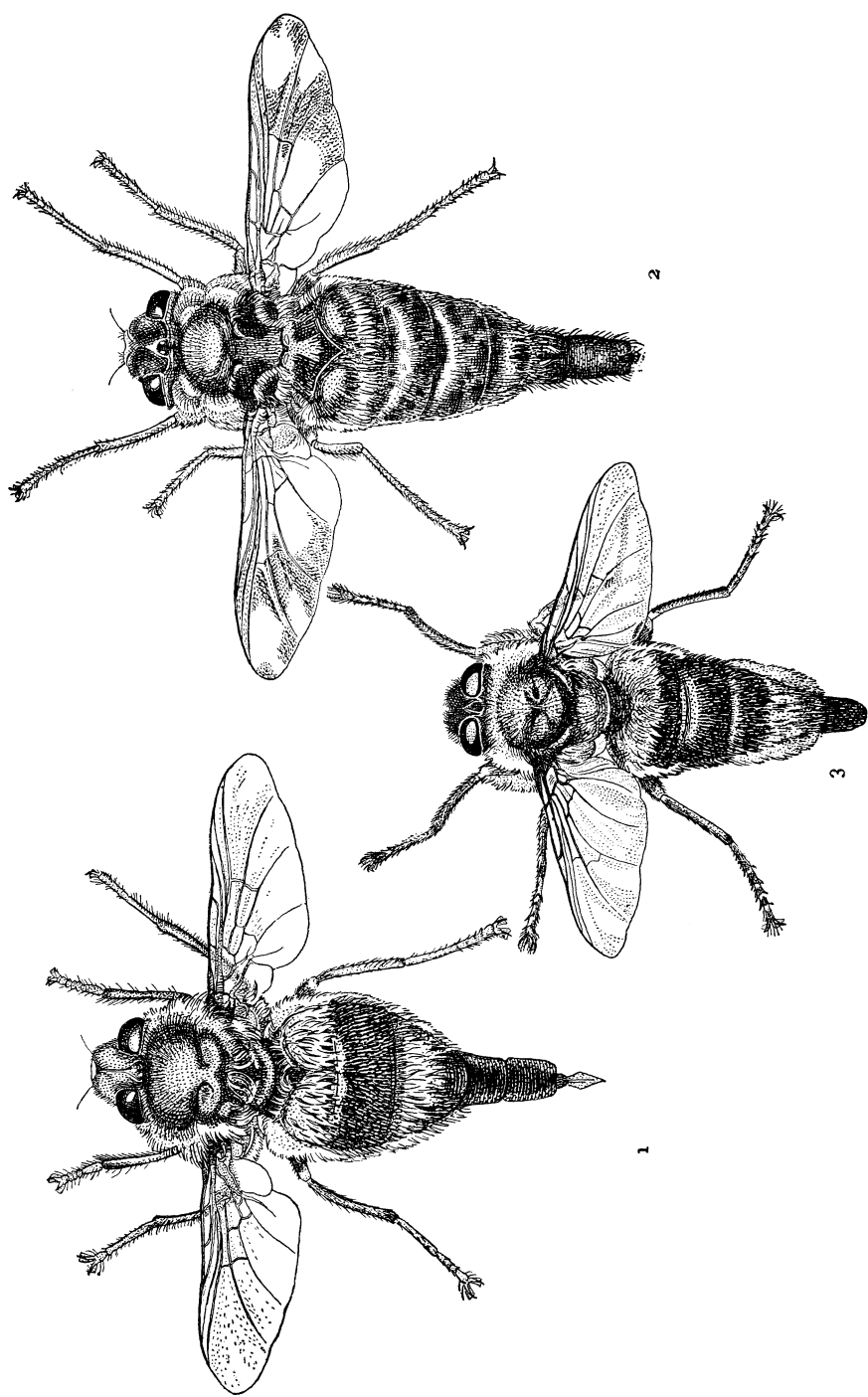
978-1-107-66102-8 - A Textbook of Agricultural Entomology

Kenneth M. Smith

Frontmatter

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A TEXTBOOK
OF
AGRICULTURAL
ENTOMOLOGY



The Horse Bot Flies. 1. *Gastrophilus nasalis* Linn. The Throat Bot Fly. 2. *Gastrophilus intestinalis* de G. (*equi* F.) The Common Bot Fly. 3. *Gastrophilus haemorrhoidalis* Linn. The Nose Bot Fly. All females. $\times 3$ approx. (See p. 192.) (Redrawn from Hadwen and Cameron.)

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A TEXTBOOK
OF
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by
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To
My Wife

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PREFACE TO SECOND EDITION

Possibly the development most significant for agricultural entomology which has taken place since this book was first published is the preparation of the new insecticides D.D.T. and Gammexane. Since the application of these substances to the control of insect pests of agricultural crops has as yet hardly begun it is difficult to say how successful they will be. So far as they have been tried they seem to show great promise and I have endeavoured to indicate each case where success has been achieved.

The bulk of the book remains unchanged but any new facts concerning life-histories and control methods have been incorporated so far as possible.

The study of the insect-borne virus diseases affecting agricultural crops has made great strides and in consequence Chapter xiv has been entirely re-written and some new illustrations added. I am indebted to my colleague Dr Roy Markham for taking the photographs for Figs. 82, 84.

KENNETH M. SMITH

CAMBRIDGE

PREFACE

A book of the nature of the present volume must necessarily be something of a compilation, and in preparing it I have made free use of the many papers on entomology which have appeared in the various scientific journals. I have, however, endeavoured to make acknowledgment of the source of any new or important facts and observations which I may have quoted. In surveying this literature the invaluable aid rendered by the *Review of Applied Entomology* must be mentioned.

Special acknowledgment is due to my sister, Faith Blomfield Smith, for her care and skill in reproducing many of the figures borrowed from other sources and for making the original illustrations of Figs. 13–18, 20–22, 40 and 43. I am also much indebted to Miss M. E. Sewell for preparing Fig. 37, and for her help in other ways; to Miss Sofie Rostrup for the loan of the original drawings of Figs. 28–30, and for permission to make use of others;

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PREFACE

to Dr H. F. Barnes for some valuable information upon the Cecidomyiidae; to Mr J. P. Doncaster for preparing Fig. 8; to Dr A. D. Imms, F.R.S., for reading part of the manuscript, for his advice on the literature of the subject and for the loan of two original drawings; to Dr George Salt and Mr H. C. F. Newton for some unpublished records of parasites of *Cephus pygmaeus* and *Phyllotreta* spp. respectively; and to Dr W. R. Thompson, of the Imperial Institute of Entomology, for the facilities afforded to me at the Farnham House Laboratory, whereby I was enabled to obtain much information in regard to the natural enemies of many insect pests. Acknowledgment for permission to reproduce figures is also due to Miss D. J. Jackson, Dr F. C. Bishopp, Dr A. E. Cameron, Dr N. Criddle, Dr J. Davidson, Dr S. Hadwen, Mr W. E. H. Hodson, Dr N. A. Kemner, Mr J. Keys, Dr O. Lundblad, Dr J. N. Oldham, Mr T. H. Taylor and the University of Leeds, and the late Mr F. V. Theobald. In every case acknowledgment is made to the author beneath each borrowed illustration. In addition, blocks were kindly provided for Fig. 41 by the Royal Physical Society of Edinburgh; for Figs. 61, 68 and 69 by Messrs Benn Bros. from *Insect Pests of the Horticulturalist*; for Figs. 6, 9, 10, 25 and 26, by Sir G. A. K. Marshall, F.R.S., from the *Bulletin of Entomological Research*; and Figs. 1, 3, 23, 34, 36, 75, 78, 79 are reproduced by permission of the Controller, H.M. Stationery Office, and the Ministry of Agriculture and Fisheries. The Editors of the *Annals of Applied Biology* allowed the use of blocks for Figs. 35, 64–66, 76 and 77; Messrs Methuen supplied electros of Figs. 32 and 33, from *A General Textbook of Entomology*; and the Trustees of the British Museum allowed the use of Fig. 53 from the *Second Report on Economic Zoology*. Mr H. Britten took the photograph reproduced in Fig. 69 and Mr C. W. Williamson took those reproduced in Figs. 78 and 79.

I am also indebted to the Chief of the Division of Publications, U.S. Department of Agriculture, for permission to reproduce a number of illustrations, and to Professor J. Stanley Gardiner, F.R.S., and Mr L. E. S. Eastham for permission to work at the insect collections in the Zoological Museums at Cambridge.

KENNETH M. SMITH

SCHOOL OF AGRICULTURE
UNIVERSITY OF CAMBRIDGE
December, 1930

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