

**BRITISH MUSEUM (NATURAL  
HISTORY). SECOND REPORT  
ON ECONOMIC ZOOLOGY;  
1904**

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BRITISH MUSEUM (NATURAL HISTORY).

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SECOND REPORT  
ON  
ECONOMIC ZOOLOGY

BY

FRED. V. THEOBALD, M.A.,

FOREIGN MEMBER OF THE ASSOCIATION OF ECONOMIC ENTOMOLOGISTS, WASHINGTON, U.S.A.;  
VICE-PRINCIPAL AND ZOOLOGIST OF THE SOUTH-EASTERN AGRICULTURAL COLLEGE;  
LECTURER ON ECONOMIC ENTOMOLOGY TO SWANLEY HORTICULTURAL COLLEGE, ETC.

*Author of "A Monograph of the Culicidae (Mosquitoes) of the World (Brit. Mus.)";*  
*"A Text-Book of Agricultural Zoology," "The Parasitic Diseases of Poultry";*  
*"An Account of British Flies," etc.*

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1904.

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## P R E F A C E.

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THE volume now issued as the Second Report on Economic Zoology contains a large part of the information furnished by the Director of the Natural History Departments of the British Museum to the Board of Agriculture and Fisheries between November, 1902, and November, 1903. It also contains the replies given by the Zoological Department to other correspondents in connection with Economic Zoology, as well as special notes and some longer papers dealing with the subject.

Mr. Frederic V. Theobald has carried on the whole of this work and drawn up the Reports now printed. He has been assisted in preparing certain replies to the Board and to other correspondents by Messrs. C. O. Waterhouse, M. R. Oldfield Thomas, F.R.S. and R. I. Pocock, of the Staff of the Zoological Department of the Museum. Mr. C. O. Waterhouse has carefully read the proof-sheets of the present volume.

Special acknowledgments are due to those naturalists not on the Staff of the Museum who have assisted Mr. Theobald in accomplishing the work set forth in these Reports. To Mr. Robert Newstead we are indebted for valuable help in naming insects of the family Coccidae, on which he is the leading authority, as also for his share in the paper on Egyptian Scale Insects (p. 185), which is mainly from his pen. Mr. Albert Michael, Mr. Distant, Dr. Nalepa, of Vienna, Professor L. O. Howard, of Washington, and Professor Neumann, of Toulouse, have also, in their several specialities, given us kind and valuable assistance.

The amount and variety of the work which it has been Mr. Theobald's duty to put through have been very large, whilst the energy and ability which he has brought to bear on the task deserve special recognition and appreciation.

The readers of the present volume, who may be in a position to present to the Museum series of specimens illustrating the Economic Zoology of any part of the world or belonging to any one of the groups recognised in our systematic classification of the subject, are requested to communicate with the Director. At present the collections, in the Museum, of forms of special economic interest require development and additional material.

E. RAY LANKESTER,

*Director.*

BRITISH MUSEUM (NATURAL HISTORY),  
LONDON, S.W.  
*February 10th, 1904.*

## A Classification of Animals from the point of view of Economic Zoology.

- GROUP A.—Animals *captured* or *slaughtered* by man for food, or for the use by him in other ways, of their skin, bone, fat or other products.  
*Examples.*—Animals of the chase; food-fishes; whales; pearl-mussels.
- GROUP B.—Animals *bred* or *cultivated* by man for food or for the use of their products in industry or for their services as living things.  
*Examples.*—Flocks and herds; horses; dogs; poultry; gold-fish; bees; silkworms and leeches.
- GROUP C.—Animals which directly promote man's operations as a civilised being without being killed, captured or trained by him.  
*Examples.*—Scavengers, such as vultures; carrion-feeding insects; earthworms and flower-fertilizing insects.
- GROUP D.—Animals which concern man as causing bodily injury, sometimes death, to him, and in other cases disease, often of a deadly character.  
*Examples.*—Lions; wolves; snakes; stinging and parasitic insects; disease germ-carriers, as flies and mosquitoes; parasitic worms; parasitic protozoa.
- GROUP E.—Animals which concern man as causing bodily injury or disease (both possibly of a deadly character) to (*A*), his stock of domesticated animals; or (*B*), to his vegetable plantations; or (*C*), to wild animals in the preservation of which he is interested; or (*D*), wild plants in the preservation of which he is interested.  
*Examples.*—Similar to those of Group D, but also insects and worms which destroy crops, fruit and forest trees, and pests such as frugivorous birds, rabbits and voles.
- GROUP F.—Animals which concern man as being destructive to his worked up products of art and industry, such as (*A*) his various works, buildings, larger constructions and habitations; (*B*) furniture, books, drapery and clothing; (*C*) his food and his stores.  
*Examples.*—White ants; wood-eating larvae; clothes moths, weevils, acari and marine borers.
- GROUP G.—Animals which are known as "beneficials" on account of their being destructive to or checking the increase of the injurious animals classed under Groups D, E and F.  
*Examples.*—Certain carnivorous and insectivorous birds, reptiles and amphibia; parasitic and predaceous insects, acari, myriapoda, etc.



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\* The reader is referred to the First Report, p. xi., for a complete classification of animals from the point of view of Economic Zoology.

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