QUAESTIONES ENTOMOLOGICAE

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Guest Editorial - The Role of the Amateur in Entomology

Entomology has now become an essentially professional science. Many younger entomologists - professionals in the true meaning of the word and experienced in all the modern techniques of entomology, such as genetics and statistics and using complex tools like the electron microscope - are possibly not fully conscious these days of the dominant role the amateur has played in the past.

Progress in the science of entomology proceeded slowly from the early beginnings in China, Greece and Rome, but already in the 17th and early 18th centuries accurate observations and illustrations were being recorded by such people as Maria Sibylla Merian in Holland and E. Albin in England and John Ray made a significant advance with his classification of insects published in 1710. The great leap forward, however, took place from the middle of the 18th century following publication of the first edition of the "Systema Naturae" by Linnaeus in 1738.

The great era of amateur entomology followed from the end of the 18th century and throughout the 19th with a flourishing of individual collectors, local societies and journals. Vast numbers of new species were described and the first major systematic works were published. This was largely the work of amateurs. It is true that great confusion has been caused by the uncritical nature of much 19th century work but, as any taxonomist knows, the problems of classification are not easy. Mistakes were inevitable. The important thing, however, was that the enormous problem of attempting to name and classify all insects throughout the world had begun. Without the enthusiasm, dedication and passionate interest in insects shown by the amateur in the past, the tremendous advances in entomological knowledge and achievement in recent years would not have been possible.

Just prior to and following the Second World War, the dominance of the professional in world entomology became complete and a major expansion in the organisation of entomology began which is still continuing at the present time. The dramatic development in entomology during the past 50 years is clearly reflected by the attendance at World Congresses. Both at the 1910 Congress in Brussels and the 1912 Congress in Oxford there were less than 150 members, while at the second Congress held in England in 1964 in London the numbers were approaching 2,000. While amateurs played an important part in the organisation of the early Congresses, only a handful were members of the 1964 Congress and papers were read by an even smaller number.

In view of the overwhelming professionalisation of entomology today, what contribution of importance can now be made by the amateur? The life histories even of many of the commoner insects are not fully known and the detailed work of rearing individual species is the sort of work admirably suited to the limited time and means of younger amateurs. Careful observation will reveal many unknown facts. The journals of local societies will normally provide an outlet for publication of such small scale studies. For the pure collector the preparation of local lists either of all orders in a limited area or of one order in a wider field will always provide information of value. The collection of any of the lesser known orders or of particular biological groups such as galls or leaf mines offers unlimited scope for exciting new discoveries.

The achievement of any original taxonomic work by amateurs becomes increasingly difficult. The multiplicity of species, the complexity of the code of nomenclature and the proliferation of literature, now published in numerous languages, necessitate years of patient study and work before one can venture into original publication. Few amateurs are prepared to devote their entire free time for years on end to entomological study of this kind which alone will qualify them as taxonomists.

A further major difficulty for any taxonomist is the study of types. Numerous species cannot be identified with certainty from the description alone and, in cases of doubt, personal examination of the holotype will always become essential. Confronted with this problem, the amateur is not in a position to apply for a grant and fly off to examine the type in question. He is dependent on the institution, wherever it may be, sending the type to him as a loan. Unfortunately, many leading museums and institutions refuse to lend types and here I would like to emphasise how much this negative policy must be deprecated. The inability to study types can represent a serious handicap to scientific work and not only amateurs suffer in this way. There is even one well known European museum which, in the past, has refused to allow a number of its types even to be examined at all "owing to their great historical value". With such a policy the scientific value of the types concerned becomes nil. Surely the whole policy in relation to types must hinge on their value for the advancement of scientific knowledge and any policy which frustrates this must be wrong.

The early Chinese around 500 B.C. listed in the Erh-ya 53 species of insects, while Aristotle recorded 47 species and Pliny in Rome 300 years later 61. Today the number of described species is approaching the million mark, while almost certainly an equal number remain to be discovered and described. Despite the immense progress of the past the tasks still facing entomology are formidable and any contribution which can be made by the dedicated amateur should be given every possible encouragement by professionals. The enthusiasm of the one combined with the experience and skills of the other will always prove a felicitous combination which can only benefit the science to which we are all devoted.

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