

Genesis of the Hymenoptera
and the phases of their evolution



S. I. MALYSHEV

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Editor's Foreword

The late Professor S. I. Malyshev, who died from a cerebral haemorrhage on 9 May 1967 at the age of 83 in the train while travelling to field work, was one of the foremost European students of the Hymenoptera, in particular of the habits of solitary bees, a subject on which he had published many papers since 1908, mostly in Russian. In 1935 he published an important paper on part of his work, and I helped to edit the publication, which was in English. A few years ago some of my friends in California asked me if I could not persuade him to complete his early paper on solitary bees, offering if necessary to arrange for a translation. When I wrote to Professor Malyshev making this suggestion he no longer had the health to produce a new work, but he sent me a copy of his recent book on the evolution of the Hymenoptera which he thought might be worth translating. Sir Boris Uvarov was good enough to translate for me the chapter and section headings, and it seemed to both of us that a lot of new ground was covered in a highly original way. The explanation of the changes in behaviour that must have taken place when the simple, plant-feeding sawflies developed into highly specialized parasites or into industrious, food-collecting, social insects such as the ants, bees, and wasps can well be regarded as one of the major challenges to zoologists. Professor Malyshev has made a unique attempt to explain each step of these changes as a natural evolutionary consequence of what we know of insect behaviour. Incidentally, a lot of unfamiliar work done in the U.S.S.R. is summarized. Naturally, some of the ideas are very speculative, if only because the processes described took place over the last 100 million years and the record is very fragmentary. Nevertheless, I am confident that Professor Malyshev draws our attention to the real problems, and I suspect that many of his brilliant speculations will prove fruitful.

After arrangements had been made between Messrs Methuens and the Department of Education and Science it was possible to have an official translation made of the book. This was excellently done by Dr Basil Haigh, of Cambridge, who made light of the technical language of entomology. Sir Boris (who was a very old friend of Professor Malyshev) compared the translation with the original and made a number of changes where it

seemed that a literal translation led to a somewhat over verbose text. I dealt with the difficult problem of the Latin names of the insects. I have attempted to bring these approximately up to date, usually by adding a later name in brackets; there are a number of species for which no one correct name is accepted by all workers. Professor Malyshev had generally made a very full and up-to-date survey of the literature, but I have added one or two important recent references which seemed to be particularly relevant to his argument.

January 1968

O. W. RICHARDS

Contents

Editor's Foreword	<i>page</i> v
1 INTRODUCTION	I
2 GENESIS OF THE HYMENOPTERA	3
Palaeontological and comparative morphological data. Hypotheses on the origin of the Hymenoptera	3
The archaic terrestrial phase	7
3 GENESIS OF THE LOWER HYMENOPTERA (PHYTOPHAGA)	10
The transition from saprophytic feeding to phytophagy. The exophytic cepheid phase. Modern relicts	10
The endophytic cepheid phase. The transition from feeding on normal plant tissues to feeding on galls	18
4 GENESIS OF THE TEREBRANTIA	26
The problem of the origin of the first carnivorous Hymenoptera	26
Hypotheses on the origin of the Terebrantia	28
The transition from phytophagy to zoophagy and the genesis of the Terebrantia	34
The archaic inquilinoid phase	39
The predatory oöphagous (ectoöphagous) phase	49
The parasitic oöphagous (endoöphagous) phase	51
The secondary phytophagous (phytoöphagous) phase	53
The delayed parasitic (metaparasitic) phase	72
The intermediate parasitic (planidial) phase	79
The hypermetamorphic parasitic phase	84
The polyembryonic parasitic phase	85
The passive parasitic (trigonaloid) phase	88
The direct parasitic (orthoparasitic) phase	95
The imaginal parasitic phase	99
5 GENESIS OF THE WASPS (VESPIFORMIA s. lat.)	106
The problem of the origin of the wasps	106
Elements of wasp life in the Terebrantia	107

The wasp-like (bethyloid) phase	<i>page</i> 110
The primary wasp (pompiloid) phase	129
The secondary wasp (sphecoid) phase	142
The third wasp (crabronoid) phase	148
The fourth wasp (bembicoid) phase	161
The fifth wasp (moneduloid) phase	171
The neo-wasp (vespoid) phase	180
The hypotheses of Bouvier and his followers on the origin of the instincts of wasps	186
6 GENESIS OF THE ANTS (FORMICOIDEA)	194
Hypotheses on the origin of the ants. The problem	194
The predatory semi-familial phase	198
The ectoparasitic semi-familial phase	200
The familial ectoparasitic (hemiformicoid) phase	211
The primary ant (proformicoid) phase	221
The secondary ant (formicoid) phase	228
7 GENESIS OF THE BEES (APOIDEA)	254
Hypotheses on the origin of the bees. The problem	254
The bee-like phase in the vespoid wasps	256
The primary bee phase of vespoid type	260
The secondary bee phase of vespoid type	262
Evolution of the sphecoid wasps and the problem of the genesis of the true bees	265
The primary bee phase of sphecoid type and its genesis	273
Bibliography	287
Index of Authors	305
Index of Latin Names	309