

Preface

This book has its roots in a conference run by the Entomological Club at The University of Reading in September, 1997.

The Entomological Club was founded in 1826, and so is the oldest extant entomological society in the world. Founded as a dining club, membership is limited to just eight by constitution – there can be no doubt that the Club is exclusive, but it has no pretensions to being elitist.

As the result of a bequest from one of the members, George Verrall, an annual dinner (The Verrall Supper) was founded in 1887 at which other entomologists could join the eight Club members; today, the event runs at about 200 diners.

This history has relevance here in that the Club decided to use the centenary of The Verrall Supper in 1987 to organise the first conference in its 160-year history. Discussing the problems arising from the clandestine, and therefore undocumented, release in the UK of foreign specimens of rare or extinct insects in the name of 'conservation', the Club decided that a conference on *The Ecology of Insect Introductions* was needed. A successful Verrall Centenary Conference on the topic was held at The University of Reading in September, 1987.

As the ten-year anniversary of that first Club conference approached, the Club felt it was time to consider a second conference. One of us (MR) suggested that the variety of interactions that occurred between insects and birds would make a novel and interesting topic. The more the Club discussed it, the more interactions could be identified, and it was not a difficult decision to make *Insects and Birds* the second Entomological Club Conference run, again at The University of Reading, in September, 1997.

Fortunately, most of the speakers we invited to participate agreed enthusiastically, and some 80 participants enjoyed an excellent conference programme. There was considerable international interest, and there was great support for producing the first book exploring the diversity of interactions between insects and birds.

It is important to point out that this volume is not a conference proceedings, although most of the contributors to the conference have contributed to it. New information has appeared since 1997, and co-authors were recruited *de novo* to increase the coverage presented in what are now reviews, often with a broader title than was appropriate at the conference. As the topic of the conference was novel, so is the material presented here, which makes a first, and thus unique, compilation of information on insect/bird interactions.

The chapters are grouped into four sections. We put population management issues first. Here, the management of arable farmland is the principal topic, since today this has become such a topical issue as people worry about the possible indirect effect on farmland birds of the planting of large areas of genetically modified crops. Also, incentive schemes such as 'set-aside' and 'countryside stewardship' are offering new opportunities for increasing the biodiversity in our farming landscape, and birds are the organisms the schemes are especially designed to benefit. However, there is another

aspect to population management – not of managing bird populations by providing insects, but of managing insects by exploiting birds as biological control agents. We believe there are few alternative sources of information on this subject to the chapter in this book.

The section on the effect of insecticides on bird populations follows on well after birds in agriculture. The contribution here from the RSPB presents an interesting approach to risk assessment in the absence of hard experimental data, and we follow this with an unusual example of how in a tourist island (one of the Seychelles) conservation of a declining bird population has had to rely on finding alternatives to neurotoxic pesticides used to achieve the level of control of domestic and urban pests required by the tourist population. Readers may then feel that exhuming the DDT–raptor decline story next is a bit *passé* in 2003, but the chapter reveals a surprising interpretation on what really happened to affect the raptors half a century ago.

The book then moves on to a different topic, the foraging behaviour of birds on insects. The first chapter in this section is another of the novelties the reader will find. It deals with colour vision in birds, but written by an ophthalmologist rather than an ornithologist. The specific area of ultraviolet vision in birds is then explored in relation to insect coloration, which takes us smoothly into warning colours and chemical defence of insects against predation by birds. More general aspects of selective foraging by birds are exemplified by studies of wryneck and great tit.

The final section deals largely with insects as parasites of birds, and begins with a review of the ecology and evolution of the co-adaptation of insect ectoparasites with birds. This is followed by another of the very novel aspects addressed in the book, one to which most readers will never have given any thought – how are ectoparasites transmitted between generations in the unusual life-style of the cuckoo? Many insects feed on detritus in birds' nests, and the final chapter addresses this with reference to moth species.

We need to add a special comment concerning the first chapter, separated out from the other chapters and identified as a 'case-study'. This chapter does not deal with insects, but with shellfish as food for shorebirds. It is a classic and detailed study of foraging by birds and how it is not density of prey, but its quality and availability, which is important in the population dynamics of the birds. We felt it had such relevance to foraging on insects by birds that it was very valuable to include it. We hope, having read this introductory chapter on shorebirds, that our readers will agree.

Our plans to produce this book were considerably delayed when our initial publisher was taken over by another company primarily interested in journals. We are therefore particularly grateful to Intercept for their interest in helping us achieve publication, and we are also most grateful to our authors for their patience, and for being so ready to revisit their subject some years after the conference to include more recent information. We believe their willingness to do this reflects a general conviction that the assembled material is well worth publishing. The chapter on transmission of ectoparasites between cuckoo generations was already published, and Cambridge University Press very kindly allowed us to reproduce the published version re-formatted to the pattern of our other chapters.

Additionally, we would like to thank our colleagues in the Entomological Club for

taking on the bulk of the refereeing involved, and Mrs. Thelma Wise for voluntary editorial assistance. We are also most grateful to Ms. Berit Pedersen of the Royal Entomological Society for help with the references.

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