

Chris J. Hodgson - much more than an expert coccidologist

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Abstract: The coccidology community appreciates the outstanding contributions made by Dr Christopher J. Hodgson and we are grateful that his scale insect work continues unabated in his "retirement". Chris' earliest studies were on Coccidae of Rhodesia (now Zimbabwe), but after he moved to Wye College, University of London, in 1967, he mostly studied aphids until the 1990s when he actively resumed taxonomic studies of scale insects. Chris had a highly productive teaching career from which he retired officially in 1999 and moved to Wales. He has authored, co-authored or edited five important books on Coccidae (soft scales), and published more than 100 articles, with almost two-thirds on scale insects and always lavishly illustrated. To date, Chris has described 25 new genera and about a hundred new species of scale insects, mostly Coccidae, but there are more on their way! In addition to his taxonomic research on female coccids, eriococcids and other families, Chris has described the adult males and nymphs of many taxa, and contributed to higher relationships of all Coccoidea based on phylogenetic study of adult male morphology. We also thank Chris for running ISSIS-VIII in 1998, and for his generous assistance to coccidologists, most recently as the subject editor of Coccoidea for *Zootaxa*. We hope that he finds enough time for his hobbies of bird watching, badminton and choir. Thank you Chris.

Key words: Hodgson, biography, systematist, soft scales, Coccidae.

Introduction

It is with great pleasure that delegates at meeting XI of the International Symposium of Scale Insect Studies (ISSIS) held in Portugal in September 2007 honour Christopher J. Hodgson for his enormous contribution to scale insect studies, for his generosity in helping others and his overall cheerful personality. The International Advisory Committee of ISSIS has bestowed on us the enjoyable task of making some comments on Chris' career.

Chris became interested in natural history in his early years while he was completing his primary education at a school in the middle of Dorset, England, just after the Second World War. He later graduated at the University of London in 1960 and first taught biology, physics and mathematics at a school near London where he stayed for two years, not apparently, because he liked the job, but because he was interested in the headmaster's daughter [Chris' own words]. After no developments in the latter interest, Chris marched into Rhodesia House in London to enquire if there were any openings in entomology and, in 1962, was offered the job of Entomologist at the Research and Specialist Services of the Department of Agriculture in Salisbury (now Harare). His work there was to identify insect pests and to suggest ways to control them. It was during this period that he became interested in scale insects, especially the genus *Pulvinaria* and its relatives. This was a challenge because Wilfrid J. Hall had been entomologist at the British Southern Africa Company at Mazoe in Rhodesia (now Zimbabwe) for many years and had already written many important papers on the scale insects of southern Africa.

Perhaps it was the influence of Giovanni De Lotto who was working at the Plant Protection Research Institute in Pretoria, South Africa, but Chris was soon publishing remarkable works on the Coccidae and other groups of the area. With the uncertain political situation in Rhodesia during the 1960s, Chris left and was offered the post of Lecturer in Applied Entomology at Wye College, University of London, England, where he

remained until his retirement in 1999. A condition of his employment was the attainment of a doctorate, but his Professor considered taxonomy a useless pursuit and so Chris studied aphid-virus-plant interactions for his PhD, and has maintained an interest in aphids to the present day. But his real passion was scale insects and, with changes in professorship, Chris was able to continue with his studies on Coccoidea. He was not too far away to have access to the collections of The Natural History Museum in London, and this opened up a wide field to work on world species.

Chris taught undergraduate and postgraduate courses at Wye College for over 30 years. During that time he supervised the research projects of 15 PhD, 2 MPhil and 12 MSc students in diverse entomological topics, but often involving aphids, other Hemiptera, thrips and mites, and mostly with a strong applied emphasis. His only PhD student who studied scale insect systematics, Hassan-Ali Vahedi, worked on the genus *Porphyrphora* and together they published an important monograph on this group. Chris' undergraduate teaching covered the breadth of zoology as well as environmental science, and his contact teaching hours were very high. He was also an external examiner at other teaching institutions from 1984 to 1990. During his teaching years only about 30% of his research publications were on scale insects as he devoted energy to publishing with his many postgraduate students.

Since his retirement, Chris has become an Honorary Lecturer at the University of Wales and a Research Fellow at The National Museum of Wales, both in Cardiff. He still lectures annually in two entomological courses at the University of Wales. We know him as a top specialist in scale insects, especially the systematics of Coccidae and the higher relationships of all Coccoidea based on adult male scale insects. Most recently, he has investigated the evolution, as told by males, of the archaeococcoids and the neococcoids, particularly the Pseudococcidae. Chris holds quite strong views on scale insect evolution and classification, but is always willing to argue constructively and good-naturedly with dissenters. His studies of adult male morphology and evolution are important companions to the molecular phylogenetic work of others, and often the two data types are congruent.

Chris has described 20 new genera and 77 new species of Coccidae, two new genera and three species of Aclerididae, two new genera and 11 new species of Eriococcidae, one new genus and species of Beesoniidae, and eight new species belonging to three other families. However, the above list will be out-of-date by the time that this article is published because there certainly are more new taxa *in press*. Chris' descriptive taxonomy is exceptional for its quality and the inclusion of as many instars as available for every species described or redescribed. He is an author or co-author of eight books, six book chapters and more than 100 refereed articles, with about 63% of all publications on scale insects. His first published article was on the biology of a species of tetrigid grasshopper. It is tempting to attribute Chris' prodigious research output to his release from an exceptionally heavy teaching load upon retirement in 1999, but he devoted numerous hours to scale insect taxonomy even when he was teaching. For example, Chris published his most substantial single contribution to coccidology "The Scale Insect Family Coccidae: An Identification Manual to Genera" in 1994, and also co-edited (with Y. Ben-Dov) the two volumes of "Soft Scales: Their Biology, Natural Enemies and Control" while still at Wye College. A review of Chris' publications shows that, although 65% of them were published prior to 1999, his average publication rate prior to 1999 was only about two per year, whereas since 2000 it has averaged nearly five per year and seems to be increasing! The only lull in Chris' publishing occurred around 1999, presumably due to time committed to the ISSIS-VIII

meeting that he organized and ran at Wye College in 1998 and his subsequent move to Wales. In fact his only publication for period 1999–2000 was the Proceedings of the ISSIS meeting. Chris is slowed down these days only by his volunteer editing and reviewing duties, family responsibilities and his many hobbies.

Chris has been the Subject Editor for Coccoidea for the online journal *Zootaxa* for several years and a number of us keep him very busy working on our manuscripts. He is a fastidious editor and generously sacrifices his own research time to improve the publications of others.

Chris' drawing techniques are notable and envious to many of us for he is able to illustrate scale insect adult females and males as well as nymphs quicker than most other workers. It is hard to estimate how many drawings he has done throughout his career but probably over 900, or it could be closer to 1000. He claims to be able to complete one per day when not distracted by other things.

Those of us who know Chris well will have noticed his preference for wearing shorts at the slightest opportunity. It all started when this was the standard uniform at his school in the south of England. Everyone who attended ISSIS-VIII held at Wye College will remember the autographed shorts presented to Chris as a memento of our appreciation of him organising the meeting.

If Chris is out of sight for an hour or two or we cannot contact him for some days or weeks, the chances are that he is bird watching. His passion for birds probably equals his enthusiasm for scale insects. He has even combined his ornithological interests with his love of art and has helped to illustrate various reports and several books on birds, including "The Birds of Kent" and "The Birds of Gwent".

Chris is keenly interested in the outdoors, including sport, and currently plays badminton twice a week to keep fit. We have not had the privilege of hearing Chris sing about scale insects but he is a keen singer of choral works with a noteworthy tenor voice and now performs in three choirs. How does he find the time for all these activities!?

We all know Chris for his cheerful temperament and constant willingness to patiently help both newcomers to scale insects and old-timers with their work. In recognition of his contributions to coccidology, Chris has a few scale insect species named after him and one genus – *Hodgsonius* Foldi, later renamed *Neohodgsonius* Foldi. Similarly the old pre-1999 Hodgson has become the new, post-1999 Hodgson with an even stronger devotion to all things coccidological. We hope that Chris will continue his studies of scale insects and we thank him for his multifaceted contributions to our discipline.