

## BOOK REVIEW

FELLOWES M.D.E., HOLLOWAY G.J. & ROLFF J. (eds) 2005: *INSECT EVOLUTIONARY ECOLOGY*. CABI Publishing, Cambridge MA, USA, 448 pp. ISBN 0-85199-812-7. Price GBP 85.00, USD 160.00.

This interesting hardback book contains the Proceedings of the Royal Entomological Society 22<sup>nd</sup> International Symposium held at the University of Reading, UK, in 2003. As other books of symposia proceedings, this volume contains a varied collection of contributions which differ in their layout but not in quality, which is generally high. It covers subjects ranging from comprehensive reviews of particular topics, to the introduction of original ideas and highly personal polemics. Not every wide ranging book is interesting enough to be read in its entirety by a person generally interested in evolutionary biology, but this one is.

Forty two authors from ten countries participated in writing eighteen chapters. The editors modestly characterize the contents as “a series of empirical case studies”. In fact the subjects dealt with may be grouped under several topics. Introductory chapters consider the intraspecific interactions and sexual selection (Bourke A.F.G.: Genetics, relatedness and social behaviour in insect societies; Cotton S. & Pomiankowski A.: Do insect sexual ornaments demonstrate heightened condition dependence?; Wedell N.: Sperm competition in butterflies and moths; Cook J.M.: Alternative mating tactics and fatal fighting in male fig wasps). The book continues with chapters on intra-specific variation and plasticity (Nylin S., Gotthard K. & Nygren G.H.: Seasonal plasticity, host plants, and the origin of butterfly diversity; Boomsma J.J., Schmid-Hempel P. & Hughes W.O.H.: Life histories and parasite pressure across the major groups of social insects; Fritz R.S. & Hochwender C.G.: Cascading effects of plant genetic variation on herbivore communities). Then follows chapters on interspecific interactions and their role in shaping species variation (Hurst G.D.D., Webberley K.M. & Knell R.: The role of parasites of insect reproduction in the diversification of insect reproductive processes; Gilbert F.: The evolution of imperfect mimicry; Wilson K.: Evolutionary

ecology of insect host-parasite interactions: an ecological immunology perspective; Johansson F. & Stoks R.: Adaptive plasticity in response to predators in dragonfly larvae and other aquatic insects). The last section is devoted to chapters dealing with mechanisms of natural selection (Majerus M.E.N.: The peppered moth: decline of a Darwinian disciple; Weill M., Labbe P., Duron O., Pasteur N., Fort P. & Raymond M.: Insecticide resistance in the mosquito *Culex pipiens*: towards an understanding of the evolution of ace genes), speciation (Thompson J.N. & Calsbeek R.: Molecular and ecological differentiation of species and species interactions across large geographic regions: California and the Pacific Northwest; Shuker D.M., King T.M., Bella J.L. & Butlin R.K.: The genetic basis of speciation in a grasshopper hybrid zone) and adaptive changes in insect population structure (Jiggins C.D., Emelianov I. & Mallet J.: Assortative mating and speciation as pleiotropic effects of ecological adaptation: examples in moths and butterflies; Thomas J.A., Schönrogge K. & Elmes G.V.: Specializations and host associations of social parasites of ants; Hill J.K., Dytham C. & Hughes C.L.: Evolutionary changes in expanding butterfly populations). Despite the diversity of themes the whole book keeps strictly to the line of reasoning and exposure indicated by the title. Each chapter, however, contains particular information, which, although scattered in previous works by the author(s), is here newly formulated.

This pleasant read took me back to my early fascination with “Ecological Genetics”, which was then close to classical evolutionary theory centered on the organismic level, but is now set free of panselectionist zeal. What a growth in evolutionary science, interest in which has increased exponentially and whose explanatory hypotheses so much proliferated. This change represents progress in evolutionary science! Is it, really? Sir Karl Popper and his adherents might say, not so, bearing in mind the receding accent on unified explanation. Anyway this change in the perception of evolution is real and this book excellently presents its current state of development.

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