BOOK REVIEWS


This splendid historical account, originally conceived (by Barry Leadbeater) only a scant year ago as a much more modest booklet with primary emphasis on development of the now 38-year-old British Section of the international Society of Protozoologists (BSSP), had its scope broadened enormously under the inspiration and enthusiastic round-the-clock labors of the eventually recruited two senior (and the principal) authors, Messrs Keith Vickerman and Michael Sleigh. So the volume now represents a fine coverage of the burgeoning field of protozoology (indeed protistology) during the exciting barely-past century, primarily in Great Britain but with inevitable references to parallel progress elsewhere around the globe. The book is an invaluable well-documented and well-illustrated story that should grace the bookshelves of protozoologists, phycologists, mycologists, and other microbiologists everywhere in the world. And beginning students may well be inspired to enter the research areas of their advisers and mentors (or of their special heroes depicted in the treatise) on perusing the pages of this delightful and easy-to-read—yet scholarly—tale, a wholesome account already worthy of consideration as a classic in its field.

A brief description of the contents of the 20 included chapters is in order here. Leadbeater, overall coordinator of the project, sets the stage with his 15-page introductory chapter (written with McCready) entitled “How It All Began.” From Leeuwenhoek (the “Father of Protozoology”), mid-17th century Dutch amateur microscopist whose astute observations on his “wee animalcules” were published in English translation in early numbers of the Philosophical Transactions of the Royal Society of London, and Robert Hooke (same period), through the 19th century (ending with W. Saville Kent and the incomparable German protozoologist Otto Bütschli), we are reminded of the stalwart and most perceptive pioneers in a then quite virgin field of biology.

Vickerman has authored the next 11 chapters (designated as Part 2 of the book and covering some 113 pages of text), which succinctly describe the development of protozoology in Britain (and, to an extent, elsewhere) from the early 1900s to date. In his own inimitable style (including interspersion of wry humor or gentle irony sometimes when least expected), he most knowledgeably treats both principles and principals of the past century, weaving such information into a well-coordinated whole. Such an invaluable integration is to be found nowhere else, at least not since Cole’s fine but much abbreviated (64-page) history of protozoology published in Britain some 75 years earlier. In more than one instance, Vickerman—gently manly but firmly—sets the record straight concerning oft-controversial matters. His chapter headings (not to mention their sectional titles) alone excite an interest in reading on: for one example, Chapter 2 itself (first of his series in the book) is entitled “Army and Empire,” sounding like a theme out of Asimov or Star Wars! But it rightly emphasizes what we may sometimes forget, that the British Empire at the turn of the (last) century was greater than any other has ever been (or is likely to be), covering a quarter of the Earth’s surface: and this was the reason for domination of the emerging field of tropical medicine/protozoology by British biologists and physicians who typically held ranks of officers in the Army and were stationed far from their homeland.

In this first compact chapter (yet one of his longest) by Vickerman, we find absorbing accounts of discoveries by the early British parasitologists/protozoologists, including especially Bruce, Donovan, Leishman, Manson, and Ross (the first recipient of a Nobel prize in Medicine in the U.K.), while not neglecting “foreigners” such as Laveran (of France), Celli and Grassi (Italy), Ehrlich (Germany), and MacCallum and Smith & Kilborne (USA.), among still others. A reading of his subsequent 10 chapters is equally rewarding, and no stone is left unturned. The range of topics authoritatively covered is amazing: free-living and fossil as well as parasitic forms, photosynthetic as well as heterotrophic species, cytology (including ultrastructure) as well as full life cycles, ecology and biodiversity as well as biochemistry and biophysics, function as well as form, genetics, heredity, and immunology as well as molecular biology, systematics as well as evolution and phylogeny, and research institutions as well as individuals. Some 70 photographs of “leading lights” are sprinkled throughout Vickerman’s essays, and at least 200 persons (not all British and certainly including deserving women as well as men) are singled out for more than a passing mention. Anecdotes abound, and occasionally I suspect that a good apocryphal tale has been inserted. Only two chapters are without a pithy quotation or two at their head.

Lamentably, space here simply does not allow a listing of even the most prominent protozoologists covered in Vickerman’s accounts (although most readers should be able to recall many of them without a hint from me!). But I cannot resist briefly mentioning three highly versatile British gentlemen whose claims to fame also existed in fields far from research productivity on unicellular organisms. One, surely the most colorful, was Edward Heron-Allen (1861–1943), elected a Fellow of the Royal Society for his extensive observations and work (as an amateur!) on the foraminiferae (he left 90,000 slides and his library of 720 volumes to the Natural History Museum in London) while also seriously pursuing hobbies ranging from writing books on and making violins, spending time as a circuit rider in the USA, breeding asparagus, and authoring novels and short stories to practicing law (as a noted professional solicitor), palmistry, and Buddhism (see Chapter 7 for more details)!! A second was Tom Goodey, FRS (1885–1953), noted as an early soil protozoologist at Rothamsted (later going into nematode studies) but also as a celebrated tenor soloist for whom an operatic role was written, just for him! Apparently embarrassed in his lab by the latter fame, he adopted the stage name of “Roger Clayson” (where did Keith dig up these wonderful tales???). Finally, a bit less startling perhaps, is the interesting story of nonagenarian Lawrence E. R. Picken’s double passion: in cytology and protozoology, where his name is still well known for his excellent pioneering work at Cambridge in the 1930s on freshwater protozoan communities and for his unique book of 1960 entitled “The Organisation of Cells and Other Organisms”; and in oriental music and musical instruments, a field in which he has been such an authority (and collector!) that, some decades ago, he quietly accepted an invitation to transfer from Zoology to the Chinese department at Cambridge (where he works happily still today)!

Sleigh undertook the important task of preparing Chapters 13–20 (Part 3, 64 pp.), contributions related mostly to the origins and formation of the BSSP but also including British participation in the International Congresses of Protozoology, J. Eukaryot. Microbiol., 47(4), 2000 pp. 000±000 © 2000 by the Society of Protozoologists