
BOOK REVIEW

Atlas of Human Malaria (Atlante della Malaria Umana)

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Malaria is one of the most serious of the tropical diseases with more than 500 million cases and 1 million deaths annually.¹ About 40% of the world's population, mainly in some of the poorest countries, are at risk of malaria, and it is a problem for tourists, military personnel, expatriate workers, and those visiting friends and family, traveling to countries where the disease is endemic. For the many who must regularly deal with parasitic diseases, then, an atlas is an invaluable aid, particularly an atlas dedicated to human malaria. At last, a definitive work is dedicated to the microscopic diagnosis of malaria and the related parasitic disease, Babesiosis. This first edition of the *Atlas of Human Malaria* has a Preface (unusually not written by the authors), a Foreword by Professors Lawrence R. Ash from the University of California Los Angeles and Thomas C. Orihel from Tulane University, Acknowledgments, a Table of Contents, an Introduction, some theoretical background concerning malaria and its life cycle, some technical information on laboratory diagnosis of malaria, over 450 photomicrographs, detailed notes on the appearance of various stages of the malarial parasite in the stained blood film, and an extensive Bibliography. One of the most remarkable features is that the text of the atlas is in English and Italian, but the translation runs in parallel, except for the Foreword, and does not detract from the readability of the atlas. Those looking for the Italian translation of the plate captions, however,

will need to look for these separately with English captions used for the photomicrographs. It would be great if it also came with a CD-ROM of the complete text and illustrations of the book in PDF files.

The atlas has a generous number of photomicrographs and accompanying explanatory captions, which is presented as an easy to read and navigate reference atlas. It is well researched, reasonably consistent, and fairly systematic in its presentation. Visual impact has been heightened by the use of full-gloss pages and full-color photomicrographs throughout. The atlas is a fairly large, 34.0 × 24.0 × 2.4 cm hard cover book and would be best kept in the laboratory or office. The cover of the *Atlas of Human Malaria* is simple yet attractive with a stylized ring form of a *Plasmodium* spp. on the front cover. The back cover is blank and perhaps misses an opportunity to promote the publication, the Center, and/or the authors.

Malaria diagnosis in the laboratory remains a challenge even for the most highly trained technicians and malariologists. The focus of the atlas on malaria is highly relevant as physicians, laboratory scientists, researchers, and other health professionals grapple with this formidable foe. Obviously, this atlas is not a textbook of malaria, and those requiring detailed discussion of malaria as a tropical disease, would need to refer to a companion textbook, such as *Essential Malariology*, which has been reviewed elsewhere.²

The main sections of the *Atlas of Human Malaria* are "What is malaria?," "Life cycle," "*Plasmodium* species of human interest," "Developmental stages of malaria in the human host," "When to look for malaria infection," "Direct microscopic blood sample examination," "Direct blood examination after staining—thick and thin film," "Common faults in making blood films," "Blood films staining," "Giemsa staining," "Reading and storage of stained

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films," "Examination of thin film," "General; appearance of a *Plasmodium* after staining," "Parasitemia," "Malaria infection in humans," "Hematological changes during malaria infection," "Mixed infections," "Leukocytes and other cellular elements in blood films," "Artifacts that "m(a)y" be confused with malaria or other blood parasites," and "Thick film *Plasmodium* spp."

The atlas has exceptionally high-quality photomicrographs and an amazing variety of different aspects of the *Plasmodium* presentation in the laboratory. It is a student's and lecturer's dreams come true in relation to the study of malaria diagnosis in the laboratory. The inclusion of a variety of photomicrographs, including those showing exflagellation, illustrates the atlas' comprehensiveness. The atlas is actually hard to fault despite being a massive work. There are a few spelling errors, which will need to be addressed before the next reprint. For impact, the inclusion of a map showing the general distribution of malaria may have been useful, as well as some additional discussion of the epidemiology of malaria, in particular the distribution of the relative prevalence of the various species of malaria. Although the demonstration of malaria parasites on thick and thin films is regarded as the gold standard by the authors of the Foreword, it is clear that rapid diagnostic tests (RDTs) for malaria have a major role in tropical medicine today,³ especially in travel medicine. It may have been useful to describe at least in an annex the evolution of RDTs for malaria. Nonetheless, the availability of the *Atlas of Human Malaria* may go some way to reclaiming lost ground of the old gold standard of malaria microscopy to RDTs. There is no index, which would be useful to include in the next edition.

The Preface, which is written by Dr Zeno Bisoffi, Head, Centre for Tropical Diseases, Ospedale S. Cuore, Negrar, Verona, Italy, gives some details of the authors. G. S. and M. G. are described as "highly experienced parasitologists," who have collaborated with Dr Bisoffi's Centre, and having made "an outstanding contribution" to establishing the "Laboratory for Tropical Diseases a referral center for clinical parasitology in Italy" (p. ii). Dr Bisoffi has further indicated that, to keep the price of this full-color atlas reasonable, the authors have not sought any sponsorship or remuneration for the present work, which is a noble gesture in this highly commercial age.

The Atlas of Human Malaria is a useful reference for all physicians, laboratory staff, and other health professionals who are engaged in the diagnosis of malaria. Academic and research departments of tropical medicine and travel health should also consider the atlas as a required textbook on textbook lists for their libraries and laboratory-based postgraduate courses in tropical medicine and parasitology. This first edition of the *Atlas of Human Malaria* is a most remarkable effort and an important addition to the exclusive international portfolio of standard atlases in tropical medicine and parasitology.

References

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3. Hawkes M, Kain KC. Advances in malaria diagnosis. Expert Rev Anti Infect Ther 2007; 5:485–495.