

## BOOK REVIEW

*Atlas of Human Malaria/Atlante della Malaria Umana*. G. SWIERCZYNSKI & M. GOBBO (2007). Sirmione, Italy: AZcolor. ISBN 978 889 028 9200. 430 pp. Price €60.00 (Hardback).

The *Atlas* is in landscape format, with a large page size of 216 × 356 mm. The text is presented in English and Italian. For the most sections, the format usefully allows the same text to be printed in the two languages on the same page.

The authors' ambition, as given in the preface of the *Atlas*, was to give 'a contribution to the improvement of malaria diagnosis' and they certainly attained that goal, producing a comprehensive guide to the recognition and detection of the human-infective malarial parasites.

The first 42 pages of the book cover the biology and epidemiology of malaria, a section on techniques, such as the preparation and staining of bloodsmears for the detection and identification of malarial parasites, and a final section on common artifacts that may be seen in bloodsmears. The text starts with an introduction to malarial parasites and their life-cycles, and includes the geographical distributions of the four main human-infective species of *Plasmodium*. Readers should remember that, although they may be based on accurate data, the distributions will change over time.

A section on the description of the developmental stages of malarial parasites that may be seen in the peripheral blood follows. Notes on the direct examination of (unstained) infected blood (pages 11 and 12) are interesting but of no diagnostic value. The text on the preparation of thick and thin bloodsmears (pages 13–20) is thorough and is followed by a colour plate showing smears of good and poor quality, with an explanation of how/why the poor

smears may have arisen and helpful tips on how to avoid such poor preparations.

The information on the staining of thick and thin smears (pages 22–28) covers the main Romanowsky stains used in blood-smear microscopy (Giemsa, May-Grünwald Giemsa and Field's), including the preparation of these stains (and buffered water) from basic reagents. Leishman's stain (commonly used in the U.K. and other Anglophile countries) is, however, omitted.

One of the most useful parts of the book (pages 29–33) describes how to read blood-smears, in terms of examination times and numbers of oil-immersion fields to be examined, and the best areas of a smear to check.

Pages 34–42 cover the general morphological appearances of malarial parasites, after staining, and the assessment of parasitaemia, before focussing on the appearance of *P. falciparum* parasites. As the colour photomicrographs of *P. falciparum* commence on page 43 and continue to page 76, with four pictures on each page, there is a large amount of graphical information on just this one species to assimilate. Each picture is accompanied by a description in English. The Italian reader has to turn forward, to pages 169–184, to read the legends to the photomicrographs in Italian, which could prove quite tedious and time-consuming.

The book continues with similar layouts of photomicrographs for *P. vivax* (pages 77–103), *P. ovale* (pages 104–123) and *P. malariae* (pages 124–141). For each *Plasmodium* species causing human malaria, a description of the infected erythrocyte (in terms of the size of the infected cell and the presence or absence of stippling) is followed by descriptions of each stage of the parasite.

The next section covers 'malaria infection in humans' and the haematological changes

that may occur during such infection, ending with micrographs of more unusual, atypical bloodsmears. A useful section on multiple, mixed-species infections, leucocytes and artifacts follows, with accompanying photomicrographs.

After the Italian descriptions of the photomicrographs of the malarial parasites, the final section provides useful summary tables and diagrams of the appearances of *P. falciparum*, *P. vivax*, *P. ovale* and *P. malariae* as seen in thick and thin bloodsmears.

There are more than 450 photomicrographs of malarial parasites to be found in this *Atlas*, which, besides showing the 'classical', 'text-book' appearances of the four main species of human-infective malarial parasites, also reveal the diversity in morphology of these species. It is this diversity that still proves to be a challenge to the microscopist whose job it is to provide an accurate diagnosis.

The large number of high-quality images, mostly taken with a  $\times 100$  (oil-immersion) objective, should provide a useful aid to the accurate identification of malarial parasites

to species level. Pictures of *Babesia* infections, which, to the uninitiated eye, may easily be mistaken for malarial parasites, are also provided.

Whilst I appreciate the difficulty of producing a better layout for this bilingual *Atlas*, it would have been easier for the reader if the text describing an image had always appeared on the same page as that image; at times it is frustrating to leave the text to find and examine a particular colour plate. At other times, to a microscopist trying to identify which species of *Plasmodium* is present in a bloodsmear, the authors' attempt at comprehensiveness becomes a disadvantage, as the very large numbers of photomicrographs may be overwhelming.

Overall, this is a publication of exceptional quality and one that should be a useful addition — perhaps not as a 'bench-aid' but as an excellent work of reference — to any laboratory where the diagnosis of malaria is performed.

J. W. BAILEY

## CORRIGENDUM

In the recent article by Kayedi *et al.* (*Annals of Tropical Medicine and Parasitology*, **101**, 519–528; DOI: 10.1179/136485907X193815) some of Albert Kilian's unpublished data were presented incorrectly. The first sentence in the right-hand column on page 525 should have read:

In Uganda, 6 months of domestic use led to a reduction in the concentration of insecticide in both the PermaNet nets (down to 4.6 mg/m<sup>2</sup>, from an initial 46 mg/m<sup>2</sup>) and the K-O nets (down to only 1.1 mg/m<sup>2</sup>, from an initial 23 mg/m<sup>2</sup>; A. H. D. Kilian, unpubl. obs.).

The authors are grateful to Ole Skovmand for pointing out their mistake, and apologise to Albert Kilian for misquoting his data.