

## Review: Brown ticks of the world

Walker, J.B., Keirans, J.E. and Horak, I.G. 2000: The genus *Rhipicephalus* (Acari, Ixodidae). A Guide to the Brown Ticks of the World. Cambridge University Press, xii+643 pp. ISBN 0 521 48008 6. Price £70 (US\$105).

The tick *Ixodes ricinus* and diseases (encephalite and especially borreliosis) transmitted by it to humans got great publicity in Finland during the last decades of the 20<sup>th</sup> century. At the same time another tick was found on dogs. The first record in Finland was made in 1977 (Saari & Nikander 1992). This pest, rather difficult to treat, was identified as the brown dog tick or kennel tick (*Rhipicephalus sanguineus*). Since early 1990s, observations on kennel tick have been done continuously in Finland.

Of the authors of the literally heavy book on *Rhipicephalus*, Jane B. Walker and Ivan G. Horak have long careers in Africa (especially in the RSA) and James E. Keirans in the USA. They are all great authorities in this field. In the book, after "Contents" and "Acknowledgements" follow brief chapters (one page each) "1 Introduction" and "2 Relationships of the ticks (Ixodida) and definition of the genus *Rhipicephalus*". The chapter "3 Format for the accounts of individual species" (10 pp) is a manual for users, including description of morphological features used, of host listing, and of zoogeography (also earlier, colonial names are mentioned); "4 Glossary" (5 pp), includes mainly morphological and taxonomic terms. In "5 *Rhipicephalus* species names of the world" (20 pp), valid names (74 species and 2 subspecies) and synonyms are listed, with complete references and data on types. "6 *Rhipicephalus* species occurring in the Afrotropical region" (19 pp) includes historical review of research and identification keys for males and females separately. In "7 Accounts of individual species occurring in the Afrotropical region" (ca 430 pp), 65 species and subspecies are in alphabetic order. Etymology, synonyms, diagnosis (male, female, nymph, larva, notes on identification), hosts, zoogeography, disease relationships, and references are given for each species in details. In addition, dorsal drawings of male and female, sets of SEM micrographs on different stages, distribution maps and tables of confirmed host records are included. In "8 Host/parasite list for the Afrotropical *Rhipicephalus* species" (28 pp), tick species are listed by host species (with scientific and common names); domestic animals, wild animals, and humans separately. Chapters 9-11 (3, 62 and 6 pp) are similar as chapters 6-8 but dealing with 10 species occurring outside the Afrotropical region. In "12 Species groups based on the immature stages" (19 pp), the capitula ("heads") of nymphs and larvae are used as key character. "13 The transmission of tick-borne diseases of animals and humans by *Rhipicephalus* species" (18 pp) includes tables according to the diseases of animals and humans, with references. "Index" (16 pp) ends the book. Relevant references are collected at the end of each chapter, and/or each tick species treated; no

total list of references is available.

SEM micrographs are good, clear and systematically the same details using equal magnitude are shown from all species. Diagnoses (descriptions) of species are excellent, and references are given handy after each species. Also the use of bold letters in names (valid ones, host preferences etc) is handy. Host/parasite list helps in preliminary identification. The list of tick-borne diseases of animals and humans is impressive. Separate parts for Afrotropical and other ticks, as well as separate keys for males, females and immatures are practical solutions.

Some critical comments can, however, be made. In the very brief chapter 2, we would like to see, for example as a table, key characters to distinguish the genera of Ixodidae. It is regrettable that the cladistic analysis by Voltzit (1999) is too recent to be included or commented. Two new species, *Rhipicephalus oreotragi* and *R. warburtoni* are described in the book by Walker & Horak. The date for these in the text is 1999, but the book was published in 2000. The type species of the genus is not mentioned. Although species are in alphabetic order, the relevant pages could be given in keys. The line drawings are all dorsal views, also ventral ones would be useful. The etymology of "*rossicus*", considered to refer to red colour, is incorrect; the name is derived from Russia (type locality is Saratov). Papers on *R. sanguineus* from Fennoscandia are missing. Printing errors etc are scarce and mainly technical, such as Introduction printed as bold in Contents, when other headings are normal. Some terms, like commonly used three-host (and two-host) species, cannot be found in Glossary or Index, and are not explained in the text.

The present book is a detailed "Everything about Brown Ticks"; it is easy and logical to use, and has enormous amount of information. Our few critical comments are minor ones. In addition to scientific libraries, the interest-groups are e.g. "tick-people", acarologists and entomologists in general, persons working within veterinary and medical parasitology or in health organisations.

Saari, S. & Nikander, S. 1992: Brown kenneltick (*Rhipicephalus sanguineus*). — Suomen eläinlääkärilehti 98(2): 72–77. (in Finnish with English summary)

Voltzit, O.V. 1999: Biological diversity of Ixodid ticks and methods of its study. — Zool. Issledovaniya (Zool. Mus., Moscow State Univ.) 4: 1–97. (In Russian with English summary)

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