

Book reviews

Wildlife husbandry and diseases. *OIE Scientific and Technical Review*, 15(1); 368 pp. Price FRF270 or US\$54. ISSN 0253-1933, ISBN 92-9044-400-2

The OIE is pleased to announce the release of the latest *Scientific and Technical Review* series, entitled *Wildlife husbandry and diseases*. Although primarily dedicated to the study of diseases in domestic animals throughout the world, the OIE also has a commitment to wild animals. A previous publication discussed the ramifications of disease in free-ranging situations. This new publication deals with wild animals in captivity.

The first section is devoted to selected groups of animals (reptiles and amphibians, birds, ratites, carnivores, wild swine and camelids), discussing husbandry practices which may reduce or possibly increase the potential for infectious and parasitic diseases. Major diseases of each animal group are listed in tabular or narrative form.

The second section describes husbandry practices, preventive medicine and quarantine from an institutional perspective (zoos, game farms and ranches, rehabilitation

centres, safari parks, exotic animal auctions and roadside menageries).

The third section is devoted to husbandry practices unique to particular geographical areas, including Southern Africa, Australia, Europe, North America and South America.

Finally, another contribution discusses the validation of laboratory diagnostic procedures extrapolated from domestic animal disease diagnosis and control.

Authors were selected for their expertise and broad experience in dealing with the care and management of wild animals in captivity.

This book provides an overview of disease concerns in wildlife husbandry, and may answer important questions for control officers, regulatory administrators, legislators, epidemiologists, those responsible for the transport of wild animals, keepers, curators, veterinarians and zoo directors.

CAMUS, E., BARRÉ, N., MARTINEZ, D. & UILENBERG, G. 1996. *Heartwater (cowdriosis): a review*. 2nd ed. OIE/CIRAD-EMVT publication. 177 pp. Price FRF250 or US\$50

Heartwater (or cowdriosis), a rickettsial disease of ruminants transmitted by ticks of the genus *Amblyomma*, is one of the major obstacles to increased animal production in many parts of Africa. For various reasons, research on heartwater stagnated for a long time: the causal agent, *Cowdria ruminantium*, could not be cultured *in vitro*; neither a laboratory animal model nor serological tests were available; diagnosis was not possible before death; and the disease concerned only sub-Saharan Africa, where research facilities and financing were generally limited. Moreover, in many countries the disease was inapparent, as local livestock is usually resistant and heartwater becomes a problem only when exotic breeds are introduced.

Research on heartwater has progressed considerably since the discovery that certain strains of *C. ruminantium* are pathogenic for laboratory mice (1971), and particularly since the disease was found to occur in the western hemisphere (1980) and the agent was successfully cultured *in vitro* (1985). Knowledge of the disease has increased tremendously over the last ten to fifteen years.

Although the field situation remains largely unchanged, the steady accumulation of research results should soon lead to breakthroughs in control and diagnosis.

Heartwater was first detected on some Caribbean islands in 1980 (although it had apparently been imported with one of the most prevalent African vector ticks, *Amblyomma variegatum*, in the 18th or 19th century). Subsequent surveys showed that the distribution of the tick in the region had been expanding rapidly since the 1960s; the tick now threatens to invade the American mainland. Research suggests that the increased prevalence of this tick is mainly due to the African cattle egret, which began to colonise the Caribbean islands in the 1950s.

The *Institut d'Elevage et de Médecine Vétérinaire des Pays Tropicaux* (IEMVT), which is now the animal production and veterinary medicine department of the *Centre de Coopération Internationale en Recherche Agronomique pour le Développement* (CIRAD-EMVT), has been active in heartwater research for many years. After heartwater was detected in the Caribbean, a laboratory for

research on the disease and its imported vector was created by the IEMVT in Guadeloupe (French West Indies). In 1982, a review of the literature on heartwater was published in French by the IEMVT team in Guadeloupe. An English translation by the Onderstepoort Veterinary Research Institute (South Africa) was published by the OIE

in 1988. A second edition in French was released in the same year, incorporating many new findings from the Guadeloupe laboratory and elsewhere. The present publication is an updated translation of the second French edition, and includes a review of much of the literature and unpublished findings obtained between 1988 and mid-1994.