

Short notes

Occurrence of ticks (Parasitiformes, Ixodida, Amblyommidae) on the skin of African buffalo *Syncerus caffer* (Sparrman, 1779) (Mammalia, Artiodactyla) originating from an area of the Republic of South Africa

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ABSTRACT. Most ticks of the genus *Amblyomma* and *Rhipicephalus* are typical ectoparasites of bovine. However, information about survival in different environmental conditions or coexistence of different species is lacking. *Amblyomma hebraeum* Koch, 1844, *Rhipicephalus appendiculatus* Neumann, 1901 and *R. maculatus* Neumann, 1901 were found in the skin (fixed in the salt) of an African buffalo *Syncerus caffer* (Sparrman, 1779), brought to Poland from the Republic of South Africa. Most of the ticks were still alive during their collection.

Key words: ticks, *Amblyomma hebraeum*, *Rhipicephalus appendiculatus*, *Rhipicephalus maculatus*, *Syncerus caffer*, African buffalo

Amblyomma and *Rhipicephalus* ticks are common in an area of South Africa [1], although the knowledge of their biology and many aspects of occurrence and parasitizing in hosts (in the case of adults – ungulate mammals Artiodactyla) is fragmentary. However, their geographic spread seems to be well-known [2], most data refer to farm animals, especially cattle *Bos taurus taurus* Linnaeus, 1758 [3–5]. These are often information about the practical importance for the host and the ability to transmit pathogens, e.g. vectors for heartwater disease [6–8]. There is no detailed information on the occurrence in the natural environment in wild animals [9], including, e.g. the data on the course of infestation, coexistence of different species, their life cycles, survival in different environmental conditions.

The ticks were found in the skin of an African buffalo *Syncerus caffer* (Sparrman, 1779), brought to Poland from the Republic of South Africa. The skin was salted and stored for nine months. The

ticks collected were fixed in 70% ethyl alcohol.

A total of 136 ticks were found, including 124 *Amblyomma hebraeum* Koch, 1844 (102 males, 22 females) (Fig. 1 A–D), seven *Rhipicephalus appendiculatus* Neumann, 1901 (2 males, 5 females) (Fig. 1 E–H) and five *R. maculatus* Neumann, 1901 (2 males, 3 females) (Fig. 1 I–L). All identified tick species are typical of Bovinae mammals. Current observations confirm the possibility of several tick species coexistence not only on one species but on one host. For comparison, coexistence of mainly two tick species, *Ixodes ricinus* (Linnaeus, 1758) and *Dermacentor reticulatus* (Fabricius, 1794), but usually showing different optimum of occurrence and different topography [10], on large ungulates is also noted in Poland [11,12].

It was observed that most of the ticks were still alive during their collection, which may indicate the exceptional resistance of these African ticks to variable environmental factors, especially that the skin was salted. The high viability of these parasites

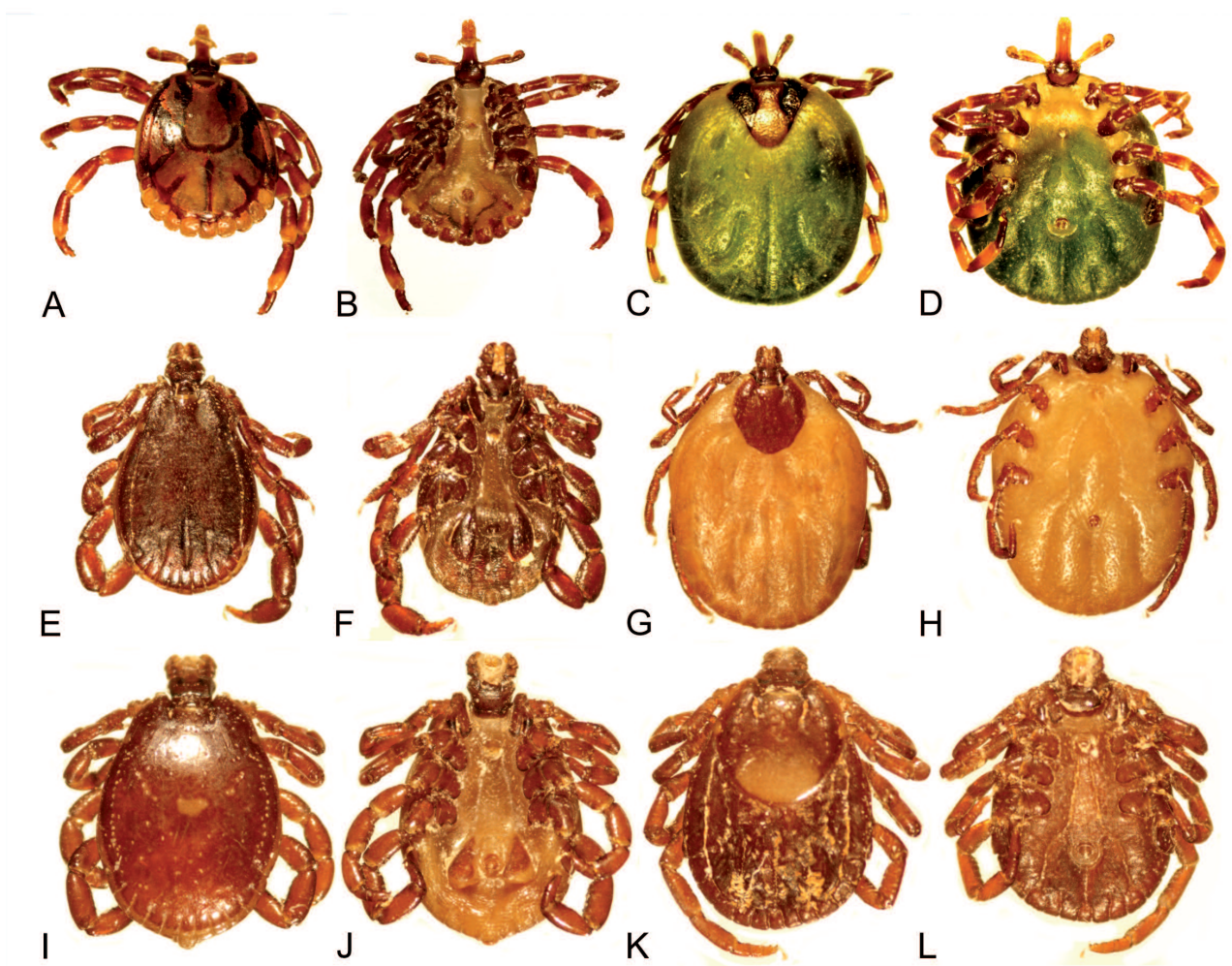


Fig. 1. *Amblyomma hebraeum* (A: male, dorsal; B: male, ventral; C: female, dorsal; D: female, ventral), *Rhipicephalus appendiculatus* (E: male, dorsal; F: male, ventral; G: female, dorsal; H: female, ventral), *Rhipicephalus maculatus* (I: male, dorsal; J: male, ventral; K: female, dorsal; L: female, ventral)

and their ability to adapt to different conditions indicate the potential for controlling new areas and increasing the area of occurrence, especially in the context of global climate change related to, inter alia, climate warming. Taking into account the importance of these ticks as vectors of pathogenic organisms, this poses potential risks to new hosts in new areas.

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