Amblyomma hebraeum (Acari: Ixodidae) from the skin of African buffalo, Syncerus caffer, from South Africa

Łukasz Mierzyński¹, Joanna N. Izdebska¹, Leszek Rolbiecki¹, Zbigniew Zawada²

¹Department of Invertebrate Zoology and Parasitology, University of Gdańsk, Wita Stwosza 59, 80-308 Gdańsk, Poland,

²Osteon, Długa 23, 63-900 Rawicz, Poland

Corresponding Author: Joanna N. Izdebska; e-mail: biojni@biol.ug.edu.pl

Amblyomma hebraeum, is distributed in South Africa, Mozambique, Botswana, and Zimbabwe. The life cycle of this tick includes three hosts. The juvenile forms infect small and medium-sized mammals, birds, and reptiles. Hosts of the adults include large herbivorous animals, e.g., cattle, giraffes, buffalo, rhinoceros, antelopes, and also goats and sheep. The life cycle of A. hebraeum lasts from one up to three years. The development of each developmental stage depends on the availability of hosts, temperature, and humidity. The most rapid pace of development occurs in approximately 30°C, and the length of the cycle increases exponentially with the decrease of temperature. Under favourable environmental conditions, hungry adult individuals can survive from 7 to 20 months. These ticks are interesting due to their coloration, which is rare for the group. Idiosoma of the females may be of a green colour, and the dorsal shield is covered with a characteristic pattern. Males are darker, with characteristic markings on the dorsal side and clearly marked pattern. Furthermore, the adults have barred legs.

The ticks used in the study were obtained from the skin of the African buffalo, *Syncerus caffer*, from South Africa, stored for the period of nine months. Twenty-eight specimens of *A. hebraeum* were found. The individuals collected were only adults. Males (24) constituted a great majority of the collection; only 4 females were identified. It was observed, that the ticks were still alive at the time of collection.

In comparison to e.g., male *Ixodes ricinus*, the most common tick in large ungulates in Poland, male *A. hebraeum* feed on blood; thus, by finding their way to the skin of the host they are not only provided with a stable microclimate or possibility to find a female, but also a constant source of food. Perhaps due to this fact, males were more numerous on the host than females (females leave the host after sucking blood to lay eggs). Finding live *A. hebraeum* ticks on a skin (removed from the host nine-months before examination, then transported, and stored under different conditions) may indicate high resistance and viability of these parasites.