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# *Rhipicephalus turanicus* Pomerantzev, 1940 (Figs. 130–132)

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## Life Cycle and Host Preferences

*Rhipicephalus turanicus* is a three-host tick that lives in lowland desert and semi-desert, steppe and open woodlands (Filippova 1997). This species is under discussion due to the morphological, biological and molecular variability of ticks identified as *R. turanicus* in different countries. For this reason, many records in the literature are currently considered speculative pending confirmation (Guglielmone et al. 2014). Indeed, genetic data indicate that ticks identified as *R. turanicus* in some regions (e.g. in some African countries) may actually represent different species (Beati and Keirans 2001; Dantas-Torres et al. 2013a). This species feeds on mammals (e.g. rodents, lagomorphs, canids, felids and mustelids), birds and lizards (Filippova 1997; Dantas-Torres et al. 2011, 2013a). Larvae and nymphs have also been found on birds, while the adult stage also occurs on lizards (Filippova 1997). Human infestation has been reported (Filippova 1997).

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## Ecology

Adults of *R. turanicus* have been found questing during the spring and summer months. In southern Italy, this species is mostly found in grasslands and meadow habitats (Dantas-Torres et al. 2013b). In the same area, two males and a nymph of *R. turanicus* were found on Corsican hares in early autumn (Dantas-Torres et al. 2011). Considering the uncertainties about the identity of ticks identified as *R. turanicus*, data on the ecology of this tick is uncertain.

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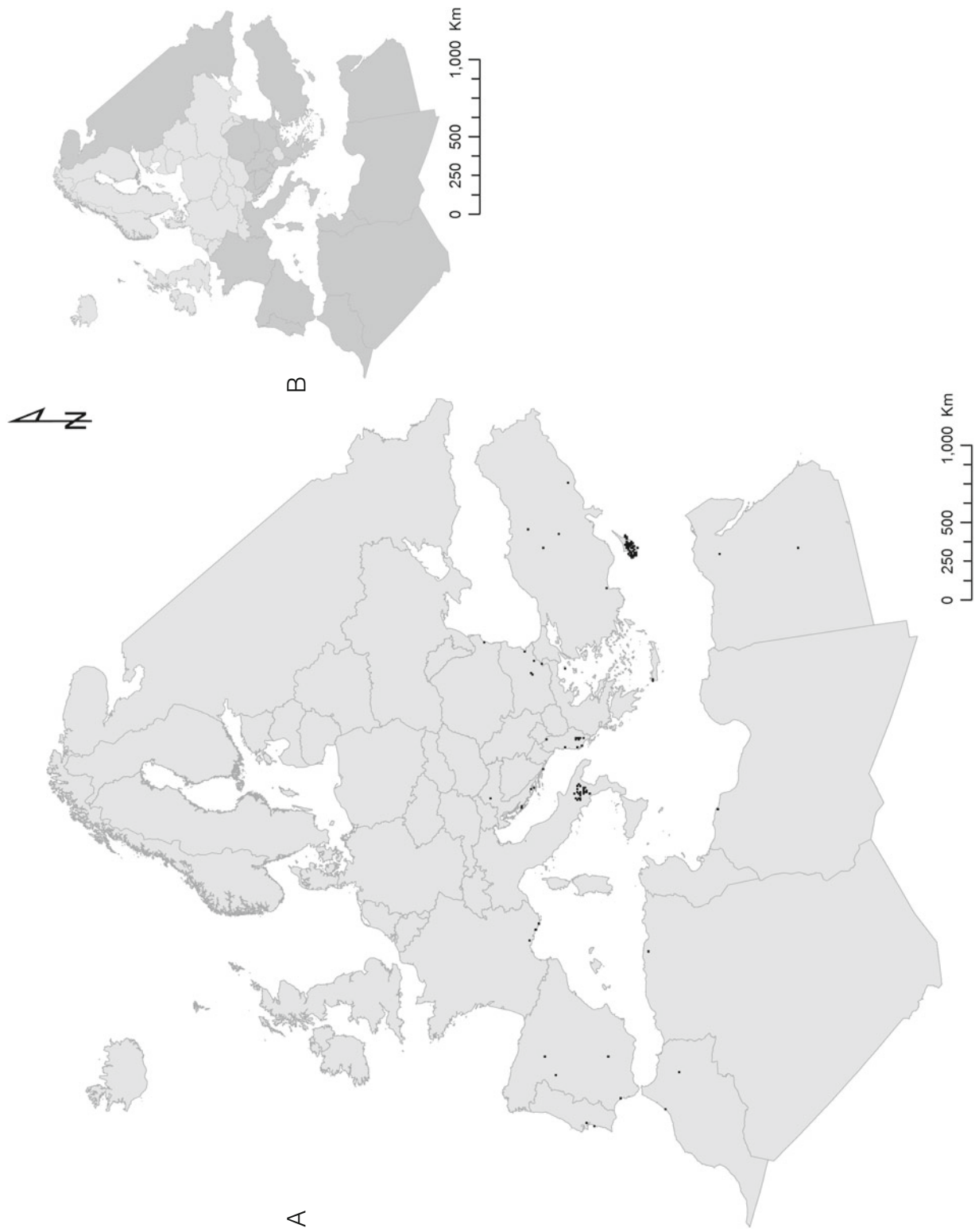
## Distribution

*Rhipicephalus turanicus* is a Palearctic species whose precise geographical distribution is unknown, considering that many distribution records are currently speculative (Filippova 1997; Dantas-Torres et al. 2013a; Guglielmone et al. 2014). It is heavily suspected that what has been classically described as '*R. turanicus*' in Europe west to Turkey might, in fact, represent another entity. It is important to notice that molecular sequences available in GenBank are expected to have the same degree of unreliability as mentioned for the records or the knowledge of the ecology of this species. There are currently only two valid sequences of *R. turanicus* in GenBank, acknowledged as coming from this species from specimens determined by N.A. Filippova.

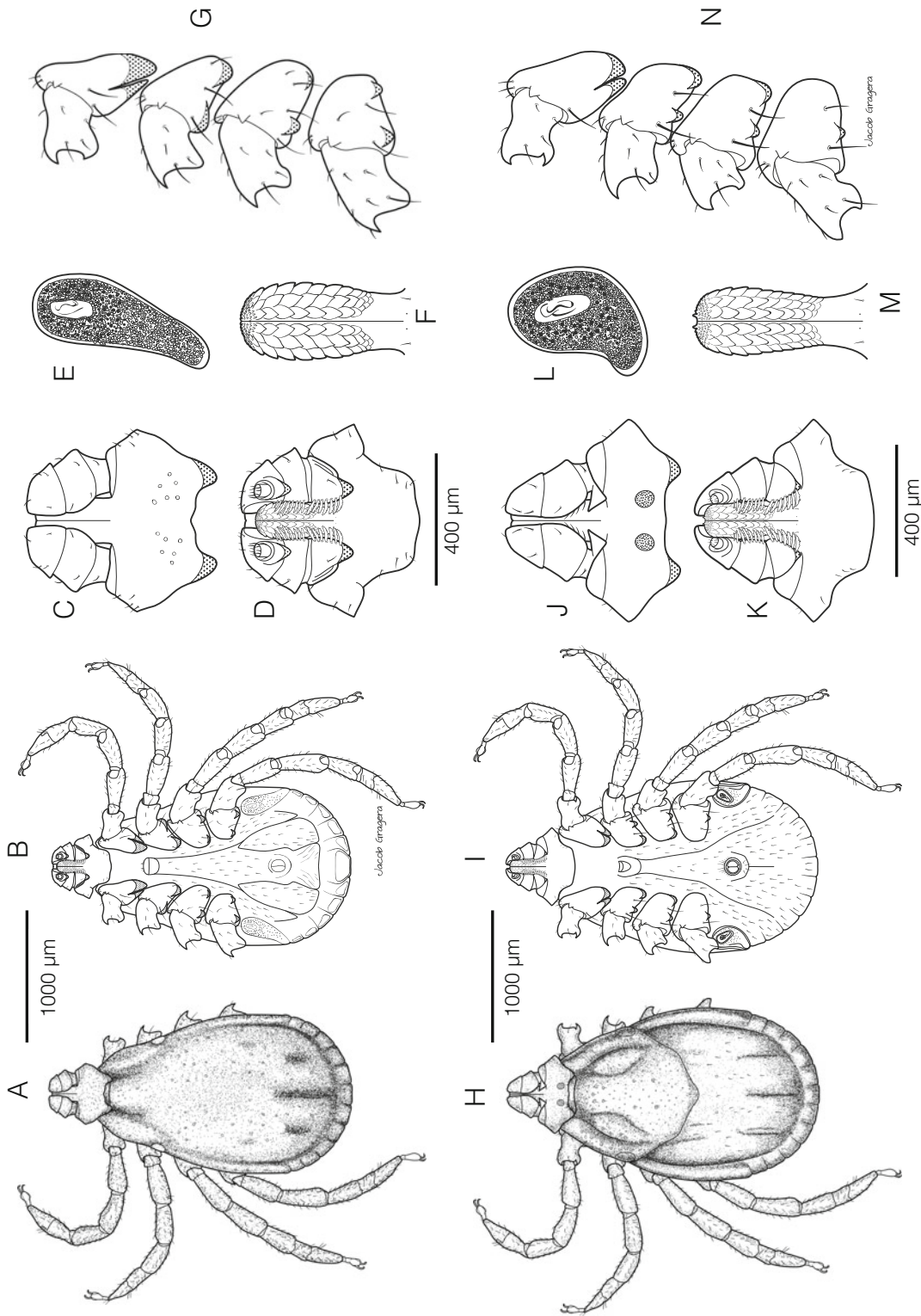
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## Vectorial Capacity and Pathogen Burden

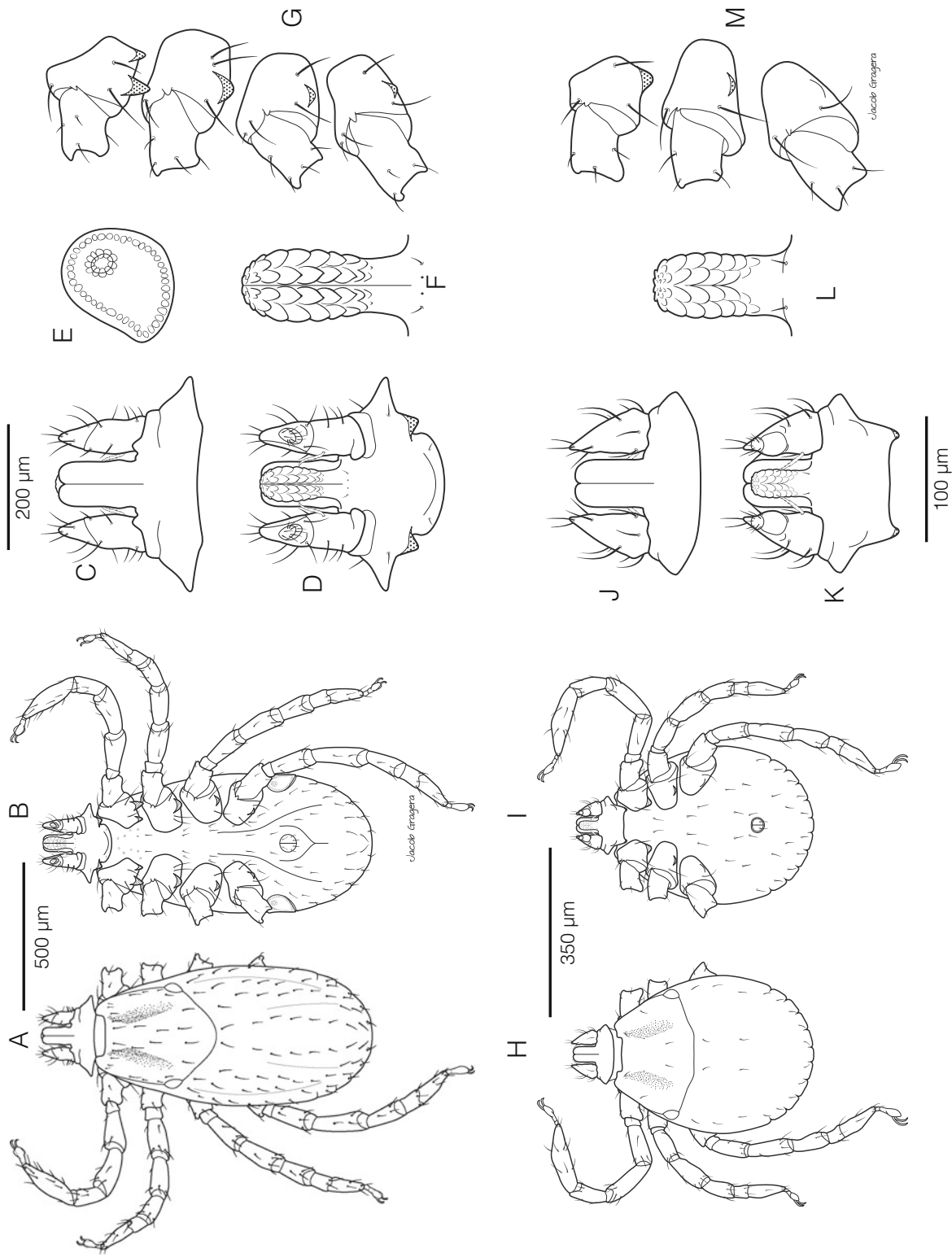
Since the taxonomic status of *R. turanicus* is under discussion, its role as a vector of human pathogens, including *Rickettsia massiliae*, *R. conorii* and other microorganisms molecularly detected in ticks designated as this species, needs confirmation. The reliability of tick identification in some old studies on the vector role of *R. turanicus* for



**Fig. 130** A Distribution of *R. turanicus* in Europe and Northern Africa ( $10 \times 10$  km grid presence with black dots). B Countries where the species has been reported are marked in dark grey



**Fig. 131** A–G The male of *R. turanicus*. A Dorsal, B ventral, C capitulum, dorsal, D capitulum, ventral, E spiracular plate, F hypostome, G coxae and trochanters I–IV. H–N The female of *R. turanicus*. H Dorsal, I ventral, J capitulum, dorsal, K capitulum, ventral, L spiracular plate, M hypostome, N coxae and trochanters I–IV. Illustrations redrawn from Filippova (1997)



**Fig. 132** A–G The nymph of *R. turanicus*. **A** Dorsal, **B** ventral, **C** capitulum, dorsal, **D** capitulum, ventral, **E** spiracle, **F** hypostome, **G** coxae and trochanters I–IV. **H–M** The larva of *R. turanicus*. **H** Dorsal, **I** ventral, **J** capitulum, dorsal, **K** capitulum, ventral, **L** hypostome, **M** coxae and trochanters I–III. Illustrations redrawn from Filippova (1997)

different pathogens may be argued. Further studies are needed to determine its participation in transmission.

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