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ABSTRACTS

Hassl A. (2016): Herpetophagic ticks and mites in Austria and their significance for human disease. 35th annual meeting of the Austrian Society for Hygiene, Microbiology and Preventive Medicine, May 30th - June 02nd, 2016, Zell/See. Abstract 51: 39.

51 Herpetophagic ticks and mites in Austria and their significance for human disease

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Field studies conducted in Central Europe revealed that up to 75 % of the free-living reptile specimens are parasitized by hard ticks of the family Ixodidae. In contrast an infestation with blood-sucking mites was only very rarely reported. Especially nymphs of the indigenous ticks *Ixodes ricinus*, *I. trianguliceps*, and *Haemaphysalis concinna* are known to feed readily on lizards and snakes. However, captive reptiles can significantly be harassed by parasitic mites of the genus *Ophionyssus* and occasionally by ticks also. In synanthropic or artificial habitats protonymphs and adults of *Ophionyssus natricis*, *O. lacertinus*, and *O. saurarum*, the only autochthonous herpetophagic mite species, plague reptiles, sometimes in exorbitant high numbers. Established tick populations are rarely found in anthropogenic habitats, except for the strictly stenoxenous, primordially Mediterranean species *Hyalomma aegyptium*. No tick or mite species is known to parasitize amphibians in Central Europe, not even accidentally.

Ophionyssus mites are eager to attack man in case of starvation, causing itchy nodules, redness, and blisters, but they do not transmit any pathogens to man. *Ixodes ricinus* is a very effective vector of some dangerous tick-borne pathogens. But there is only one tick-borne etiologic agent associated with reptiles, the bacterium *Borrelia lusitaniae*, which is one of several local pathogens causing Lyme borreliosis in man. It is transstadially transmitted by *I. ricinus*, but not transovarially, which is why the tick cannot serve as reservoir host. In Central Europe, the most important reservoir hosts are the lizards *Lacerta agilis* and *Podarcis muralis*. There is a high probability of *B. lusitaniae* spirochetes to occur in habitats with rich syntopic populations of both, *I. ricinus* and lizards. By entering such habitats during recreational activities the risk of acquiring a Lyme disease seems to be considerable.