

Enigmatic but not erratic: systematics of dermanyssoid mites

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The diverse mite superfamily Dermanyssoidea comprises over 2600 described species making it one of the most speciose mite superfamilies. The Dermanyssoidea are ecologically labile and particularly prone to forming phoretic, mutualistic, or parasitic relationships with larger animals. Their interrelationships have been enigmatic. Their systematics was built upon ideas of morphological and ecological similarity and rooted according to assumptions about "primitive" forms and their supposedly primitive habits. The most specialised taxa tended to be given high ranks. The first detailed morphological analysis of this group shows that some previous assumptions are unfounded. Contrary to some claims there are consistent characters that diagnose some large groups within this superfamily. Various highly specialised forms (eg. Varroidae, Alphalaelaptinae) share synapomorphies with previously established and better-defined subfamilies.

