



Eriophyoid mites under the lens of different microscopy techniques*

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*In: Zhang, Z.-Q., Fan, Q.-H., Heath, A.C.G. & Minor, M.A. (Eds) (2022) *Acarological Frontiers: Proceedings of the XVI International Congress of Acarology (1–5 Dec. 2022, Auckland, New Zealand)*. Magnolia Press, Auckland, 328 pp.

Eriophyoid mites, also known as bud, gall, or rust mites, impact nearly all crops of economic importance, including food crops, timber, and ornamental plants. Currently, they are divided into three families (Phytoptidae, Eriophyidae and Diptilomiopidae) with an estimated one million species, of which just over 5600 have been described. These tiny cuneiform mites cause millions of dollars in economic losses in national and international markets. The purpose of this presentation is to explain the different microscopy techniques used to study eriophyid mites and understand their associations with diseases. Our worldwide knowledge of eriophyoid mite systematics, ecology and biology is still scant. The many different microscopy systems are critically important tools that allow us to understand this well-dispersed superfamily that often goes unnoticed.

Keywords: Cry-SEM, Confocal Microscopy, DIC, Phase contrast Microscopy, TEM, Eriophyoidea, Virus

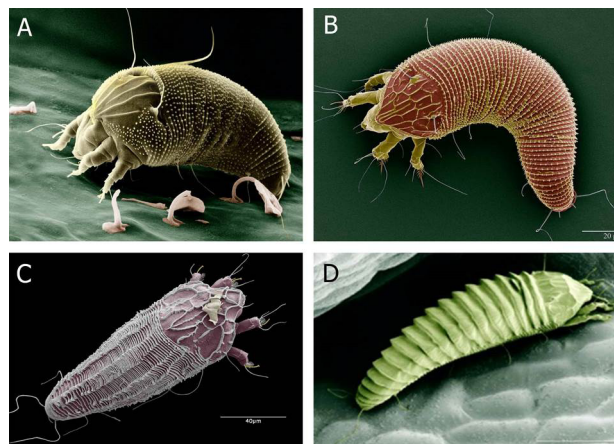


FIGURE 1. Eriophyoid mites a) *Aceria anthocoptes* (Nal.), b) *Phyllocoptes fructiphilus* Keifer, c) *Retracrus johnstoni* Keifer, d) *Vittacus bougainvilleae* (K.).