

## **Itchers with Glitches: resolving polyphyly in the phylogenetically important genus *Androlaelaps***

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The cosmopolitan mite genus *Androlaelaps* Berlese, 1903 (ca 86 spp) has been given a central position in hypotheses of the evolution of vertebrate parasitism within the family Laelapidae (1320 spp). This genus of parasites, predators and hemiparasites occurs on small mammals and birds and has been hypothesised to "represent the ancestry" for nearly all the vertebrate parasites in the Laelapidae. Apart from translation into testable phylogenetic concepts, this hypothesis also requires defining what *Androlaelaps* actually is. The concepts of *Androlaelaps* used since Berlese (1911) are shown to be polyphyletic. Three wholly separate groupings in former *Androlaelaps* are diagnosed and described incorporating key morphological features such as male mouthparts. This example shows convergence can be detected even in regressed characters and provides fresh insights into the evolution of parasitism.

