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Hotspots of new species discovery: new mite species described during 2007 to 2012

DONG LIU¹, TIAN-CI YI², YUN XU³ & ZHI-QIANG ZHANG^{4,5}

¹ Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun 130012, P. R. China

² The Provincial Key Laboratory of Agricultural Pest Management in Mountainous Region Guiyang 550025, P. R. China; and Institute of Entomology, Guizhou University, Guiyang 550025, P. R. China

³ Institute of Plant Protection, Fujian Academy of Agricultural Sciences, Fuzhou, China & College of Plant Protection, Fujian Agricultural and Forestry University, Fuzhou, P. R. China

⁴ Landcare Research, 231 Morrin Road, Auckland, New Zealand;

⁵ Corresponding author; email: zhangz@landcareresearch.co.nz



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Abstract

The type localities of new mite species described in two journals (*Systematic & Applied Acarology* and *Zootaxa*) during the last six years (2007–2012) were surveyed to detect hotspots of new mite species discovery. Among the 642 papers examined, 71% of them contain new species, with 148 new species in 2007, 207 in 2008, 234 in 2009, 208 in 2010, 333 in 2011 and 249 in 2012. *Systematic & Applied Acarology* published about 3% of the total new species indexed by *Zoological Record* during 2007–2012, whereas *Zootaxa* published about 35% of the total. The 1379 new species are distributed unevenly among 150 mite families; the top 15 families accounted for 55% of all the species, and 86 of the 150 families have 1–3 species each. The top family is the Eriophyidae, which alone accounted for nearly 15% of the total new species. Geographically, the new species were described from 92 countries and their distribution among these countries is highly uneven. The top 10 countries accounted for 62% of all the new species and the top country, China, alone accounted for 18% of the total. The average number of new species per country is 15 and no more than a fifth of the countries are above the average, and 40% of the countries have only 1–3 new species each. The top country for each continent is China (248 species) for Asia, Australia (166 species) for Oceania, Brazil (76 species) for South America, Kenya (51 species) for Africa, USA (51 species) for North America and Russia (42 species) for Europe. Increased efforts in discovering and describing new species are much needed for biodiversity-rich countries in South America, Southeast Asia and Africa.

Key words: Acari, new species, biodiversity, hotspots, taxonomy, mites, type locality, type depository