



## Preliminary faunistic study on Erythraeoidea (Acari: Trombidiformes) in China\*

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The superfamily Erythraeoidea consists of two families: Erythraeidae and Smarididae. To date, 44 named species of Erythraeidae and three named species of Smarididae have been recorded in China.

The 44 named Chinese species of erythraeid mites belong to the following 15 genera in five subfamilies: Abrolophinae [*Abrolophus* (five species), *Grandjeanella* (one species), and *Marantelophus* (one species)], Balautiinae [*Balaustium* (one species)], Callidosomatinae [*Caeculisoma* (four species), *Callidosoma* (one species), *Charletonia* (two species), *Dambullaeus* (two species), and *Iguatonia* (two species)], Erythraeinae [*Claverythraeus* (one species), *Eatoniana* (three species), *Erythraeus* (seven species), *Neophanolophus* (two species), and *Podosmaridia* (one species)] and Leptinae [*Leptus* (11 species)]. Of them, 37 species are from the Oriental region, six species from the Palaearctic region, and only one species—*Abrolophus quadrapexicis* covering both the Palaearctic and Oriental regions of China.

At the genus level, three genera (*Balaustium*, *Claverythraeus*, and *Podosmaridia*) are from the Palaearctic region of China, 10 genera from the Oriental region of China, and only two genera (*Abrolophus* and *Erythraeus*) from both the Palaearctic and Oriental regions of China.

On the zoogeographic division of the world, there are two genera (*Claverythraeus* and *Podosmaridia*) distributed in the Palaearctic region only, the so-called unitary faunal type. Among cross-region types, the components of the cross-Oriental region type are dominant (80%) at the genus level.

At the species level, under world zoogeographic division, the components of the unitary Oriental region type (84%) are the most common and those of the unitary Palaearctic region type are the second. Only one species (*A. quadrapexicis*) belongs to the cross-region types.

The Smarididae has three species in China: *Fessonia australiensis*, *F. papillosa*, and *Hirstiosoma tibetensis*; only *H. tibetensis* has been known from Bomi country, Tibet Autonomous Region, while the distributions of the remaining two species are unknown. According to collection records, *H. tibetensis* belongs to the Oriental region, although most areas of Tibet belong to the Palaearctic region.

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