

Pseudacarapis indoapis (Acari: Tarsonemidae) on *Apis mellifera* and *A. cerana* in China: a new record

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***Pseudacarapis indoapis* (Acari: Tarsonemidae) on *Apis mellifera* and *A. cerana* in China: a new record**QING-HAI FAN¹ & WEN-LIN LI²¹ Plant Health & Environment Laboratory, Ministry for Primary Industries, Auckland 1140, New Zealand.E-mail: qinghai.fan@mpi.govt.nz² Key Lab of Biopesticide and Chemical Biology, Ministry of Education; College of Plant Protection, Fujian Agriculture and Forestry University, Fuzhou 350002, China

To investigate tarsonemid mite association with bees in China, we sampled both *Apis mellifera* and *A. cerana* in Fujian and Shanxi in April and May 2013. All 3600 bees were found negative for *Acarapis woodi* (Rennie 1921) but *Pseudacarapis indoapis* (Lindquist 1968)—new to China—was frequently discovered on both bee species, with female mites found individually inside the posterior tutorial pit of the bee. This is the second finding of this mite on *A. mellifera*; the first was in Egypt (Abou Senna 1997). *P. indoapis* was originally described from India (Lindquist 1968). It is known feeding on pollen and fungal debris in bee colonies (Sumangala 1999) and thus likely to be of minor economic importance.

Pseudacarapis contains only two species: *P. indoapis* and *P. trispicula* Ochoa & Pettis, 2003. Adult females of *P. indoapis* (Fig. 1) can be readily separated from *P. trispicula* by having an unbroken prosternal apodeme (*ap pr*) and having tarsal setae *p''* and *tc'*, but lacking lateral extension of apodeme 3 (*ap 3*).

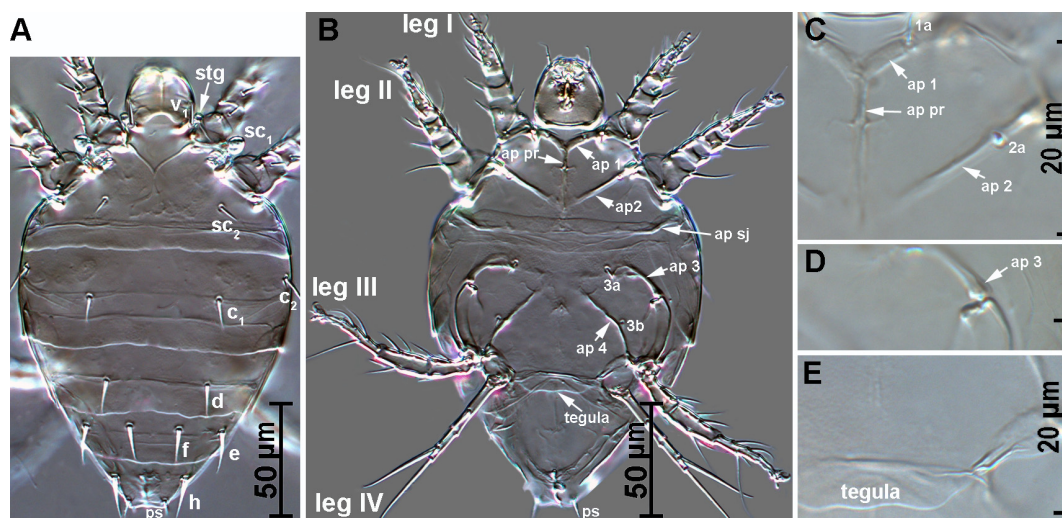


FIGURE 1. *Pseudacarapis indoapis* (adult female). A, dorsal view; B, ventral view; C, coxal area (I and II); D, coxal area (III); E, coxal area (IV).

References

- Abou Senna, F.M. (1997) A new record of phoretic mites on honey bee *Apis mellifera* L. in Egypt. *Journal of the Egyptian Society of Parasitology*, 27(3), 667–680.
- Lindquist, E.E. (1968) An unusual new species of *Tarsonemus* (Acarina: Tarsonemidae) associated with the Indian honey bee. *The Canadian Entomologist*, 100(9), 1002–1006.
- Ochoa, R., Pettis, J.S. & Mireles, O.M. (2003) A new bee mite of the genus *Pseudacarapis* (Acari: Tarsonemidae) from Mexico. *International Journal of Acarology*, 29(4), 299–305. <http://dx.doi.org/10.1080/01647950308684345>
- Sumangala, K. (1999) Ecobiology of *Pseudacarapis indoapis* (Acari: Tarsonemidae). 1. Nutrition, dispersal and host range. *Entomon*, 24(3), 235–239.

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