

The tiny flower fairies *Neocypholaelaps indica* Evans, 1963 (Acari: Ameroseiidae)

Authors: Fan, Qing-Hai, and Jiang, Fan

Source: Systematic and Applied Acarology, 19(2) : 248-249

Published By: Systematic and Applied Acarology Society

URL: <https://doi.org/10.11158/saa.19.2.15>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Correspondence

The tiny flower fairies *Neocypholaelaps indica* Evans, 1963 (Acari: Ameroseiidae)

QING-HAI FAN¹ & FAN JIANG²

¹ Plant Health & Environment Laboratory, Ministry for Primary Industries, Auckland, New Zealand.

E-mail: qinghai.fan@mpi.govt.nz

² Key Laboratory of Integrated Pest Management for Fujian-Taiwan Crops, Ministry of Agriculture; Fujian Agriculture and Forestry University, Fuzhou 350002, China

Neocypholaelaps indica Evans, 1963 is the resident of flowers. It is one of the twenty known species of the genus *Neocypholaelaps* (De Moraes & Narita 2010). This species was found on more than thirty four kinds of flowers and also on the visitors of the flowers, such as bees, butterflies and flies. Four species of honey bees, *Apis cerana*, *A. dorsata*, *A. florea* and *A. mellifera* are known in association with this mite species (Eickwort 1988).

Evans (1963) originally described this species from *Apis cerana* in India. It is now distributed in Asia, North Africa and East Europe: China (Mainland: Teng & Pan 1964; Taiwan Island: Lo & Chao 1975), Egypt (Senna 1997), Korea (Woo & Lee 1993), Nepal (Baker & Delfinado 1976), Pakistan (Shafi 1986), Sri Lanka (Koeniger *et al.* 1983) and Russia (Grobov 1974).

Neocypholaelaps indica completes its life cycle in flowers. Pollen is the main nutrition source for them and nectar may also be used to survive. Usually all life stages, egg, larva, protonymph, deutonymph and adult, are present in a flower (Cover photo, bottom left and right). The adult females disperse with the aid of bees and other flower visitors (Cover photo, top left and right). They are often seen in bee hives in very large numbers in flowering seasons. We collected female mites from both European bee *Apis mellifera* (Plate 1. left) and Asian bee *A. cerana* (Plate 1. right) in mid-April in Fuzhou, China. Seventy females were counted from a single Asian bee and one to a dozen of females were found in pollen granules collected by bees.



PLATE 1. Left: *Neocypholaelaps indica* on the thorax of *Apis mellifera* on a flower of *Rhododendron* sp.; **Right:** *Neocypholaelaps indica* on the thorax of *Apis cerana* on a flower of *Camellia sinensis* (Photograph: F. Jiang).

References

- Baker, E.W. & Delfinado, M.D. (1976) Notes on the bee mite *Neocyphophyllops indica* Evans, 1963. *American Bee Journal*, 116(8), 384 & 386.
- De Moraes, G.J. & Narita, J.P.Z. (2010) Description of a new species of *Neocyphophyllops* (Acari: Ameroseiidae) from Brazil, with a key to the world species. *Zootaxa*, 2554, 37–44.
- Eickworth, G.C. (1988) The origins of mites associated with honey bees. In: Needham G.R., Page R.E., Delfinado-Baker M. & Bowman C.E. (Eds.), *Africanized Honey Bees and Bee Mites*, Ellis Horwood, Chichester, pp. 327–338.
- Evans, G.O. (1963) The genus *Neocyphophyllops* Vitzthum (Acari: Mesostigmata). *Annals and Magazine of Natural History*, ser. 13, 6(64), 209–230.
<http://dx.doi.org/10.1080/00222936308651345>
- Grobov, O.F. (1974) Gamasoid mites as parasites of bees. *Veterinariya*, Moscow, USSR, 8, 78–82.
- Koeniger, N., Koeniger, G. & Delfinado-Baker, M. (1983) Observations on mites of the Asian honeybee species (*Apis cerana*, *Apis dorsata*, *Apis florea*). *Apidologie*, 14(3), 197–204.
- Lo, K.C. & Chao, R.S. (1975) Preliminary investigations on bee mites in Taiwan. *Journal of Agricultural Research of China*, 24(1/2), 50–56.
- Senna, F.M.A. (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.
- Shafi, M. (1986) Pest and disease records. Pakistan. A new mite pest of hive bees. *Quarterly Newsletter, Asia and Pacific Plant Protection Commission*, 29(3), 31.
- Teng, K.-F. & Pan, Z.-W. (1964) An ameroseiid mite—*Neocyphophyllops indica* Evans from *Apis mellifera* [honey bee]. *Acta Entomologica Sinica*, 13(5), 771–772.
- Woo, K.S. & Lee, J.H. (1993) A study on the mites inhabiting beehives in Korea. I. *Korean Journal of Apiculture*, 8(2), 140–156.

Accepted by Zhi-Qiang Zhang: 1 May 2014; published 27 Jun. 2014