



European Union Reference Laboratory for honeybee health

TROPILAEELAPS spp. mites

Tropilaelaps mites are notifiable pests in the European Union. It is not yet present in Europe.

Etiological agent

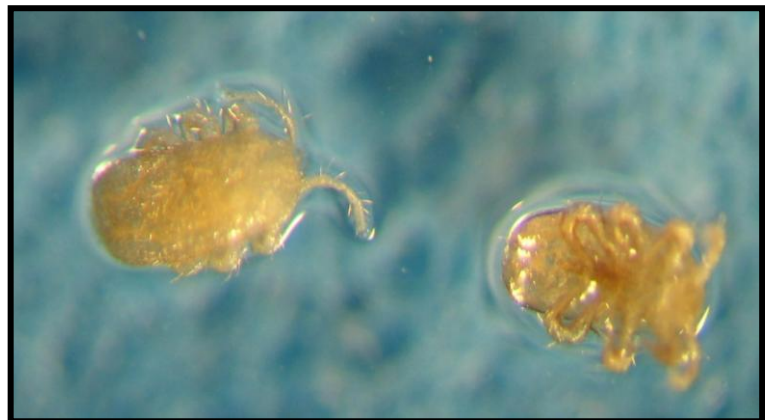
Tropilaelaps spp. are parasitic mites of honeybees. There are currently two species documented, *Tropilaelaps clarae* and *Tropilaelaps koenigerum*. They are serious parasitic mites affecting both developing brood and adult honeybees.

How to recognize *Tropilaelaps* spp.?

- Mite: 4 pairs of legs, absence of antenna, body in one apparent region.
- Size: 1 mm x 0.6 mm
- Visible to the naked eye, smaller than *Varroa destructor*.
- Unlike *Varroa destructor*, *Tropilaelaps* spp. is longer than wide.

Life cycle

- Biological cycle looks like Varroa cycle: multiplication in brood.
- Length cycle: about 1 week; reproduction rate higher than Varroa's.
- Feed exclusively on honey bee brood. These mites cannot feed on adult honeybees (unable to pierce the cuticle) on which it cannot survive more than 2 days.
- Parasite dissemination occurs with adult honeybees (phoresy). Unlike *Varroa destructor*, males can live outside the honeybee brood (about 5 days) although the adults mites mate before the honeybee emergence.



Suspicion criteria / Infestation consequences for the colony

Detection of suspect/atypical mites, different from varroa during the brood examination or on adult honeybees.

The clinical signs of the infestation with *Tropilaelaps* mites are similar to varroosis clinical syndromes:

- deformed wing honeybees
- deformed abdomen

This disease form has been designed to recognize the clinical signs of the disease in the honeybee colony.

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- cappings with small holes
- spotty brood pattern (irregular brood)
- dead brood

Therefore, it is crucial to detect atypical mites.

What should be done in case of suspicion?

- Alert as soon as possible the competent authority which will implement adequate measures.

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