

1. PaDIL Species Factsheet



Scientific Name:

Varroa jacobsoni Oudemans
(Arachnida: Acari: Varroidae)

Common Name

Varroa Mite

Live link: <http://www.padil.gov.au:80/pests-and-diseases/Pest/Main/136487>

Image Library

Australian Biosecurity

Live link: <http://www.padil.gov.au:80/pests-and-diseases/>

Partners for Australian Biosecurity image library



Museum Victoria
<http://museumvictoria.com.au/>



CRC National Plant Biosecurity
<http://www.crcplantbiosecurity.com.au/>



Plant Health Australia
<http://www.planthealthaustralia.com.au/>



Department of Agriculture, Fisheries and Forestry
<http://www.daff.gov.au/>



Department of Agriculture and Food, Western Australia
<http://www.agric.wa.gov.au/>

2. Species Information

2.1. Details

Specimen Contact: AQIS - Melbourne -

Author: Walker, K.

Citation: Walker, K. (2005) Varroa Mite (*Varroa jacobsoni*) Updated on 6/1/2009 Available online: PaDIL - <http://www.padil.gov.au>

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2.2. URL

Live link: <http://www.padil.gov.au:80/pests-and-diseases/Pest/Main/136487>

2.3. Facets

Status: Exotic species - absent from Australia

Group: Non-insects

Commodity Overview: General, Medical & Veterinary

Commodity Type: General

Distribution: USA and Canada, Central and South America, Europe and Northern Asia, Mediterranean Basin, Africa, South and South-East Asia

2.4. Other Names

honey bee parasite

2.5. Diagnostic Notes

Adult female mites are brown to dark brown, shaped like a crab.

Body measurements can be used to distinguish *V. jacobsoni* and *V. destructor*.

Body Length Body width

V. jacobsoni 1.06mm 1.50mm

V. destructor 1.16mm 1.70mm

Source:

Zhi-Qiang Zhang (2000) see references and weblinks

Their curved bodies fit into abdominal folds of the adult bee and are held there by the shape and arrangement of ventral setae. This protects them from the bee's normal cleaning habits. Adult males are yellowish with lightly tanned legs and spherical body shape. The male chelicerae are modified for transferring sperm. The protonymph and deutonymph stages were described by Delfinado-Baker (1984).

Source: M.T. Sanford, University of Florida; H.A. Denmark, Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry; H.L. Cromroy, University of Florida; and L. Cutts, FDACS, Division of Plant Industry.

http://creatures.ifas.ufl.edu/misc/bees/varroa_mite.htm

2.6. References

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Ecosistema 3:78-79. Breguetova NG. 1953. [The mite fauna of the Far East.] Parasitologičeskii Zbornik ZIN AN SSR. 15:302-338. (In Russian). Buza L. 1978. Control of varroa disease in Hungary. *Apiacta* 13:176-177. Crane E. 1979. Fresh news on the varroa mite. *Bee World*. 608:8. Cromroy HL. 1984. The Asian honeybee mite, a new threat to American beekeepers. Florida Extension Service. EYN-48. 4 p. Delfinado MD. 1963. Mites of the honeybee in Southeast-Asia. *Journal of Apicultural Research* 2:113-114. Delfinado MD, Baker EW. 1974. Varroidae, a new family of mites on honeybees Mesostigmata: Acarina). *Journal of the Washington Academy of Science* 64:4-10. Delfinado-Baker M. 1984. The nymphal stages and male of *Varroa jacobsoni* Oudemans, a parasite of honeybees. *International Journal of Acarology* 10:75-80. Denholm C. (unknown) *Varroa WWW Hub*. *Plant and Invertebrate Ecology*. <http://www.rothamsted.bbsrc.ac.uk/pie/BrianGrp/VarroaHub.html> (8 April 2004). Ehara S. 1968. On two mites of economic importance in Japan (Arachnida: Acarina). *Appl. Entomol. and Zool.* 3:124-129. Grobov OF. 1976. Varroasis in bees. In: *Varroasis, a honey bee disease*. Apimondia Publishing House, Bucharest. 46-70. Gunther CEM. 1951. A mite from a beehive on Singapore Island (Acarina: Laelapidae). *Proceedings of the Linnean Society of New South Wales*. 76:155. Hicheri LK. 1978. *Varroa jacobsoni* in Africa. *Apiacta* 13:178. Kevan PG, Lavery TM, Denmark HA. 1990. Association of *Varroa jacobsoni* with organisms other than honey bees and implications for its dispersal. *Bee World* 7:119-121. Koivulehto K. 1976. *Varroa jacobsoni*, a new mite infesting honeybees in Europe. *British Bee Journal* 104:16-17. Laigo FM, Morse RA. 1969. Control of the bee mites, *Varroa jacobsoni* Oudemans and *Tropilaelaps clareae* Delfinado and Baker with chlorobenzilate. *Philippine Entomologist* 1:144-148. Marin M. 1978. World spread of varroa disease. *Apiacta* 13:163-166. Montiel JC, Piola GA. 1976. A new enemy of bees. *Campo Moderno and Chacra*, Oct. 1976:36-37. English translation In *Varroasis, a honey bee disease*. Apimondia Publishing House, Bucharest. 36-38. Orosi-Pal Z. 1975. [Varroa in America]. *Mehezset*. 23:123. (In Hungarian). Oudemans AC. 1904. On a new genus and species of parasitic acari. *Notes. Leyden Museum* 24:216-222. Phadke KG, Bisht DS, Sinha RBP. 1966. Occurrence of the mite *Varroa jacobsoni* Oudemans in the brood cells of the honey bee, *Apis indica* F. *Indian Journal of Entomology* 28:411-412. Popa A. 1980. Agriculture in Lebanon. *American Bee Journal* 120:336-367. Ritter W. 1981. Varroa disease of the honeybee *Varroa mellifera*. *Bee World* 62:141-153. Ruttner F. 1977. [Interim report on the cause of varroa infection.] *Die Biene*. 13:353-354. (In German). Samsinak K, Haragsim O. 1972. [The mite *Varroa jacobsoni* imported into Europe.] *Vcelarstvi*. 25:268-269. Sanford MT. 2001. Introduction, spread and economic impact of Varroa mites in North America. In: *Mites of the Honey Bee*. Hamilton, Illinois: Dadant & Sons. pp. 149-162. Sanford MT. (1997). A history of varroa mite in Florida, with discussion of controls. APIS <http://apis.ifas.ufl.edu/threads/varroa.htm> (May 2000). Santos LA. 1979. Problems of honey bee colonies in Greece. *Apiacta* 14:127-313. Stephen WA. 1968. A beekeeping problem in Vietnam and India. *Bee World* 49:119-120. Tian ZS. 1967. [The disease of bees caused by the mite *Varroa jacobsoni*.] *Monop Kvahaiboi Karpo*. 4:30-31. (In Korean). Tzjen-He I. 1965. The biological peculiarities of the acarine mite *Varroa jacobsoni* Oudemans. *Kounchong Zhishi*. 9:40-41. (In Chinese). Velitchkov V, Natchev P. 1973. Investigation about the *Varroa jacobsoni* disease - Oud. in *Proceedings of the XXIV In. Apic. Congr. Buenos Aires, Argentina*. 375-377. Zhi-Qiang Zhang (2000). Notes on *Varroa destructor* (Acari: Varroidae) parasitic on honeybees in New Zealand. *Systematic and Applied Acarology Special publications* 5: 9-14: http://www.nhm.ac.uk/hosted_sites/acarology/saas/saasp/pdf10/saasp05b.pdf

2.7. Web Links

Images: <http://www.biosecurity.govt.nz/pests-diseases/animals/varroa/varroapics.htm>

Overview Information: http://creatures.ifas.ufl.edu/misc/bees/varroa_mite.htm

Overview information: <http://edis.ifas.ufl.edu/IN164>

PDF publication on separation of Varroa species:

http://www.nhm.ac.uk/hosted_sites/acarology/saas/saasp/pdf10/saasp05b.pdf

3. Diagnostic Images



Collected on *Apis cerana*
Dorsal closeup: Ken Walker Museum
Victoria



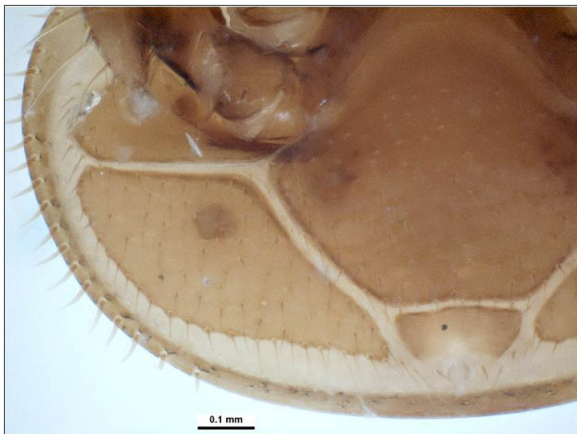
Collected on specimens of *Apis cerana*
Dorsal view: Ken Walker Museum Victoria



Collected on *Apis cerana*
Mite attached to bee: Ken Walker AQIS,
Victoria



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Mouthparts closeup: Ken Walker Museum
Victoria



Collected on *Apis cerana*
Ventral closeup: Ken Walker Museum
Victoria



Collected on *Apis cerana*
Ventral view: Ken Walker Museum Victoria

4. Other Images



Collected on *Apis cerana*
Mite attached to bee: Kathryn Sparks AQIS,
Victoria



Collected on *Apis cerana*
Mite on bee adult: Kathryn Sparks AQIS,
Victoria

Results Generated:

Wednesday, April 1, 2020
