



HAL
open science

Some new records of spider mites (Acari, Tetranychidae) from Syria

Mahram Zeity

► **To cite this version:**

Mahram Zeity. Some new records of spider mites (Acari, Tetranychidae) from Syria. *Acarologia*, 2017, 57 (3), pp.651-654. 10.24349/acarologia/20174184 . hal-01535833

HAL Id: hal-01535833

<https://hal.science/hal-01535833>

Submitted on 9 Jun 2017

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial - NoDerivatives 4.0
International License



ACAROLOGIA

A quarterly journal of acarology, since 1959
Publishing on all aspects of the Acari

All information:



<http://www1.montpellier.inra.fr/CBGP/acarologia/>
acarologia@supagro.inra.fr



**Acarologia is proudly non-profit,
with no page charges and free open access**

Please help us maintain this system by
encouraging your institutes to subscribe to the print version of the journal
and by sending us your high quality research on the Acari.

Subscriptions: Year 2017 (Volume 57): 380 €

<http://www1.montpellier.inra.fr/CBGP/acarologia/subscribe.php>

Previous volumes (2010-2015): 250 € / year (4 issues)

Acarologia, CBGP, CS 30016, 34988 MONTFERRIER-sur-LEZ Cedex, France

The digitalization of Acarologia papers prior to 2000 was supported by Agropolis Fondation under the reference ID 1500-024 through the « Investissements d'avenir » programme (Labex Agro: ANR-10-LABX-0001-01)



Acarologia is under **free license** and distributed under the terms of the Creative Commons-BY-NC-ND which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author and source are credited.

Some new records of spider mites (Acari, Tetranychidae) from Syria

Mahran ZEITY

(Received 08 December 2016; accepted 19 January 2017; published online 17 May 2017; edited by Alain MIGEON)

*Latakia Center of Scientific Agricultural Research, General Commission for Scientific Agricultural Research, Damascus, Syria.
mzma2009@gmail.com*

ABSTRACT — Five species of Tetranychidae are reported in this study, two species and three species from subfamilies, Bryobinae and Tetranychinae, respectively. Two species, *Petrobia* (*Petrobia*) *latens* (Muller) and *Bryobia rubrioculus* (Scheuten) from Bryobinae while, the other three species, *Amphitetranynchus viennensis* (Zacher), *Eotetranychus carpini* (Oudemans) and *Eotetranychus hirsti* Pritchard & Baker represent Tetranychinae.

KEYWORDS — *Bryobia*; *Petrobia*; *Amphitetranynchus*; *Eotetranychus*; Syria

ZOOBANK — [7FE6A48A-E59F-4DC3-BE70-25E9500F3820](https://www.zoobank.org/7FE6A48A-E59F-4DC3-BE70-25E9500F3820)

INTRODUCTION

Of over 1275 described species of spider mites in the world, only 11 species have been reported from Syria (Kady, 1964; Barbar, 2013, 2014, 2016; Zriki *et al.*, 2015). The Syrian mite fauna is poor owing to limited work in this branch of acarology. The identification of Syrian mites associated with plants started with Kady (1964) from a quarantine station in Egypt, with the report of *Panonychus ulmi* on imported apple from Syria. Most of the recent mite faunal studies were restricted to agro-ecosystems with field crops, orchards and wild plants (Barbar, 2013, 2014, 2015, 2016; Kerhili *et al.*, 2015; Zriki *et al.*, 2015). This report is a part of annual survey of plant-associated mites carried out at Latakia Center of Agricultural Research, General Commission for Scientific Agricultural Research in Syria.

The aim of this report is to make official documentation of some important spider mite species.

Many species are already known from the neighboring countries and five species of spider mites are reported as new records in this study.

MATERIALS AND METHODS

A small twig of the plant (cultivated or wild) was plucked and examined using a 10X hand lens for the presence of spider mites. Plant materials with mites were placed in polyethylene bags with proper labeling. The label contained details like name of the host, date of collection, location details (GPS data) and collector. The plant samples were then brought to the laboratory for further examination. The samples were processed within 2-3 days and those which could not be processed were stored in a refrigerator at 10°-15°C and processed within next two days. Mite specimens were mounted in Hoyer's medium for further taxonomic identification. Males of subfamily Tetranychinae were mounted in lat-

eral position for examination of aedeagus, a very important character for species level identification (Pritchard and Baker, 1955). All microscopic slide mounts were maintained at Latakia Center of Agricultural Research.

RESULTS

Five species of spider mites (Tetranychidae) were collected in this study. The systematic positions of the species were recorded along with the collection data.

Sub-family Bryobinae

Bryobia rubrioculus (Scheuten, 1857)

This species reported from Lebanon on *Malus domestica* and *Prunus domestica* (Dosse 1963, Dosse and Musa, 1967). This species is distributed worldwide and reported from 63 countries on 66 species of host plants a majority of them belonging to family Rosaceae. In the present study, this species was found associated with the buds of the *Prunus domestica* and relatively in huge members at the bases of leaves, feeding and causing discoloration on the upper surface of the leaf.

Material examined — 11 females, ex. *Prunus domestica*, coll. Mahran Zeity, Qalaat Mahalibeh, Latakia, (35°30'13.6"N, 36°05'03.6"E) September, 2016.

Petrobia (Petrobia) latens Muller

This species is polyphagous, reported from more than 115 host plants has worldwide distribution.

Material examined — Three females, ex. *Triticum aestivum*, coll. Mahran Zeity, Qalaat Mahalibeh, Latakia, (35°30'14.6"N, 36°05'01.1"E), May, 2016.

Sub-family Tetranychinae

Eotetranychus carpini (Oudemans) (Figure 1, a)

This species is yellowish-green in colour. It was reported from Lebanon on *Prunus* sp. Also reported on 40 host plants from 27 countries in two major regions of Nearctic and Palearctic (Migeon and

Dorkeld, 2006-2016). This species is reported from Syria on *Ostrya carpinifolia*, as reported from France and Italy (Duso *et al.*, 2004; Migeon *et al.*, 2007). This species causes serious damage to leaves of *Ostrya carpinifolia* due to feeding by large number of individuals.

Material examined — Four males and six females, ex. *Ostrya carpinifolia*, coll. Mahran Zeity, Qalaat Mahalibeh, Latakia, (35°30'08.5"N, 36°05'01.0"E), May 2016.

Eotetranychus hirsti Pritchard & Baker (Figure 1, b)

This species is reported from neighboring countries of Syria. So far this species reported from five countries on seven host plant species in the world. *Eotetranychus hirsti* type locality is Coimbatore, India 1926. Zeity (2015) reported this species from down surface of *Ficus* leaves in Bangalore and Raichur, Karnataka, India, more often associated with rust fungus and caused discoloration of leaves. Individuals of mite colony move out towards the fruit region and cause blistering on the fruit skin due to feeding/damage by huge mite population.

Material examined — Five males and seven females, ex. *Ficus carica*, coll. Ayman Halloum, Al Qutayfah, Damascus countryside (33°42'36.9"N 36°33'54.7"E), August, 2016.

Amphitetranychus viennensis (Zacher) (Figure 1, c)

This species bordeaux-red in color inhabits down surface of leaves with low population and without a distinct web. It was reported from neighboring country Lebanon by Dosse and Musa (1967) on *Prunus* sp. and *Malus domestica*.

Amphitetranychus viennensis is reported on 51 host plants species from 38 countries distributed in Oriental and Palearctic regions (European countries). Majority of host plants are under botanical family Rosaceae and genera like *Crataegus*, *Cydonia*, *Malus* and *Prunus*.

Material examined — Four males and 8 females, *Prunus domestica* (cultivar Stanley), coll. Mahran Zeity, Qalaat Mahalibeh, Latakia (35°30'13.5"N, 36°05'01.9"E), August 2016.

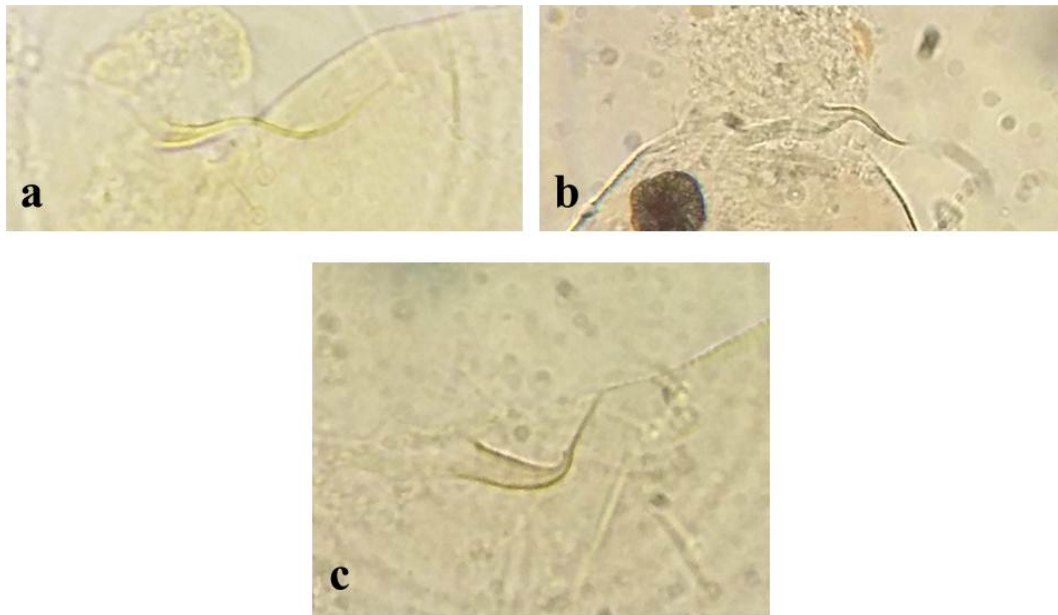


FIGURE 1: Male aedeagus of (a) *Eotetranychus carpini*, (b) *Eotetranychus hirsti* and (c) *Amphitetranychus viennensis*.

DISCUSSION

This is a brief documentation of knowledge about spider mites of Syria. This short communication added five species of Tetranychidae so far unknown from Syria. Further studies are to be carried out on the fauna of Acari from Syrian region.

ACKNOWLEDGEMENTS

The author is grateful to General Commission for Scientific Agricultural Research, Damascus, Syria for logistic support during the study.

REFERENCES

- Barbar Z. 2013 — Survey of phytoseiid mite species (Acari: Phytoseiidae) in citrus orchards in Lattakia Governorate, Syria — *Acarologia*, 53(3): 247-261. doi:10.1051/acarologia/20132098
- Barbar Z. 2014 — Occurrence, population dynamics and winter phenology of spider mites and their phytoseiid predators in a citrus orchard in Syria — *Acarologia*, 54(4): 409-423. doi:10.1051/acarologia/20142143
- Barbar Z. 2015 — First record of the family Cunaxidae (Acari: Trombidiformes) from Syria with description of a new species — *Acarologia*, 55(4): 459-465. doi:10.1051/acarologia/20142185
- Barbar Z. 2016 — The mite fauna (Acari) of two Syrian citrus orchards, with notes on their morphology and economic importance — *Syst. Appl. Acarol.*, 21(8): 991-1008. doi:10.11158/saa.21.8.1.
- Dosse G. 1963 — *Bryobia rubrioculus* Scheuten in der nordlichen Bekaa des Libanons (Acarina: Tetranychidae) — *Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz*, 70: 652-665
- Dosse G., Musa S. 1967 — Phytophagous mites in Lebanon and their predators — *Magon, Institut de Recherches Agronomiques, Liban*, 12: 1-24.
- Duso C., Fontana P., Malagnini V. 2004 — Diversity and abundance of phytoseiid mites (Acari: Phytoseiidae) in vineyards and the surrounding vegetation in north-eastern Italy — *Acarologia*, 44(1-2): 31-47.
- Kady M. 1964 — Control of winter eggs of *Panonychus ulmi* Koch on imported apple fruits (Acarina) — *Bulletin de la Société Entomologique d’Egypte*, 48: 1-3.
- Kerhili S., Barbar Z., Aslan, L.H. 2015 — First record on identification and population dynamics of the false spider mite *Brevipalpus californicus* (Banks) in lemon orchards in Lattakia Governorate of Syria — *Arab J. Plant Prot.*, 33(3): 248-253.
- Migeon A., Dorkeld F. 2006-2016 — *Spider Mites Web*: a comprehensive database for Tetranychidae [Internet] — Available from: <http://www.montpellier.inra.fr/CBGP/spmweb>. Last accessed on November 2016.
- Migeon A., Malagnini V., Duso C., Navajas M. 2007 — Notes on the genus *Eotetranychus* (Acari: Tetranychidae)

Zeity M.


dae) in Italy and France with redescription of *Eotetranychus fraxini* Reck, new record for Italy and Western Europe — *Zootaxa*, 1509: 51–60.

Pritchard A.E., Baker E.W. 1955 — A revision of the spider mite family Tetranychidae — San Francisco: Pacific Coast Entomological Society, Memoirs series, 2, pp. 472

Zeity M. 2015 — Tetranychid mite fauna of major agroecosystems in Karnataka and some aspects of molecular characterization of selected genera of spider mites [Ph. D. thesis] — Department of Entomology, University of Agricultural Sciences, Bangalore, India. pp. 240.

Zriki G., Shaabo A., Boubou A. 2015 — A preliminary survey of the spider mites (Acari: Tetranychidae) in Latakia Governorate of Syria — *Acarologia*, 55(3): 303–309. doi:10.1051/acarologia/20142173

COPYRIGHT

 Zeity M. *Acarologia* is under free license. This open-access article is distributed under the terms of the Creative Commons-BY-NC-ND which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author and source are credited.