Persian J. Acarol., 2020, Vol. 9, No. 1, pp. 83–85.
http://dx.doi.org/10.22073/pja.v9i1.55165
Journal homepage: http://www.biotaxa.org/pja

Correspondence

First record of *Petrobia* (*Petrobia*) *pseudotetranychina* (Trombidiformes: Tetranychidae) in Asia, with two new host plants for Tetranychidae from Iran

Zohreh Shakeri and Malihe Latifi*

Department of Plant Protection, College of Agriculture, Vali-e-Asr University of Rafsanjan, Iran; shakery1993@gmail.com, m.latifi@vru.ac.ir

* Corresponding author

PAPER INFO.: Received: 14 September 2019, Accepted: 13 October 2019, Published: 15 January 2020

Genus *Petrobia* Murray, 1877 belongs to the family Tetranychidae, subfamily Bryobiinae Berlese and tribe Petrobiini Reck, 1952. *Petrobia* comprises three subgenera: *Mesotetranychus* Reck, 1948, *Petrobia* Murray, 1877 and *Tetranychina* Wainstein, 1960 (Mahdavi *et al.* 2018). By the year 2019, 80 species belonging to the family Tetranychidae have been recorded from Iran, among them four species including *P. brevipes* Reck & Bagdasarian, 1949; *P. hordei* Khanjani, Khanjani & Seeman, 2016; *P. latens* (Müller, 1776) and *P. norbakhshi* Khanjani, Khanjani & Seeman, 2016 belong to *Petrobia* (*Petrobia*) (Migeon and Dorkeld 2019). In this paper, we report the first record of *P.* (*P.*) *pseudotetranychina* Auger & Flechtmann, 2009 (Trombidiformes: Tetranychoidea: Tetranychidae) from Asia collected on *Salsola* sp. (Amaranthaceae), which is also the second report of this species in the world. Moreover, this paper introduces two new host plants (*Capparis spinosa* Linnaeus and *Cydonia oblonga* Miller) for tetranychid mites from Iran. *Capparis spinosa* is also the first record for the world. To collect mite species, leaves and sheaths of *Salsola* sp. were collected in bags and taken to the laboratory. Mites were removed from infested plants by dipping-washing-filtering method (Boller 1984). This solution was filtered through a sieve (400 meshes) and then mites were washed with ethanol 70% into a Petri dish. They were mounted in Hoyer's medium. Specimens were examined using an Olympus BX 43 phase-contrast compound microscope.

Petrobia (*Petrobia*) *pseudotetranychina* Auger & Flechtmann, 2009 (Fig. 1)

The first report of *Petrobia* (*Petrobia*) *pseudotetranychina* Auger & Flechtmann, 2009 (Fig. 1), was from *Atriplex* sp. in Tunisia. This species was collected from a new host plant, *Salsola* sp. (Amaranthaceae) in Iran, Ravar, Kerman Province, 31° 12' 59" N, 56° 48' 52" E, 1197 m a.s.l., 3 Nov. 2017. This is the second and the first report of this species from the world and Iran, respectively.

Distribution

South Tunisian oasis areas (Auger *et al.* 2009); Iran (this paper).

How to cite: Shakeri, Z. & Latifi, M. (2020) First record of *Petrobia* (*Petrobia*) *pseudotetranychina* (Trombidiformes: Tetranychidae) in Asia, with two new host plants for Tetranychidae from Iran. *Persian Journal of Acarology*, 9(1): 83–85.

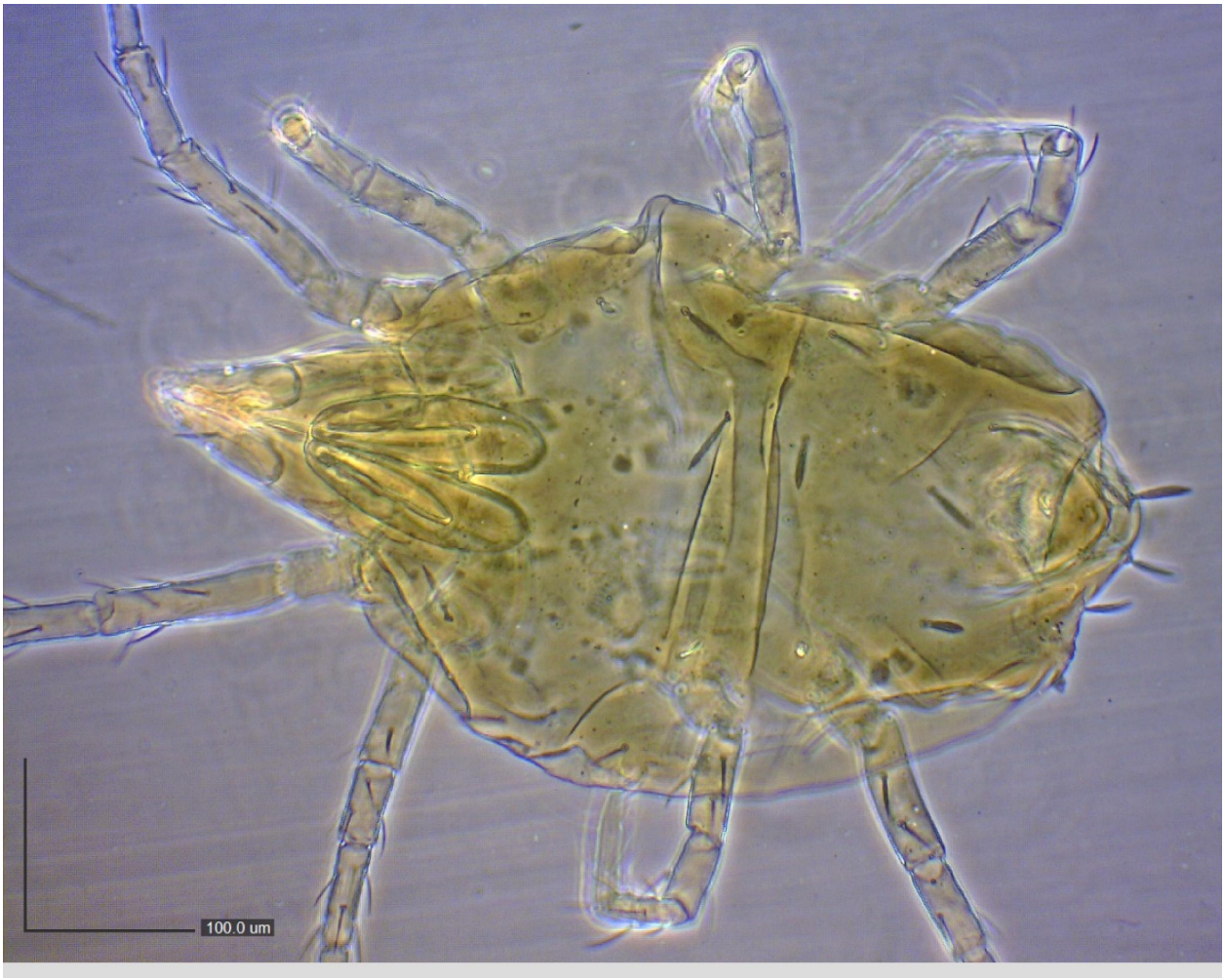

Figure 1. *Petrobia* (*Petrobia*) *pseudotetranychina* (female) – Dorsal view of idiosoma.

New host plants

Tetranychus truncatus (Ehara, 1956) was collected on peppermint from Razavi Khorasan, Iran by Sadeghi-Namaghi (2009). In this paper, this species was collected from *Capparis spinosa* in Kerman province, 30° 54' 14" N, 56° 33' 36" E, 1855 m a.s.l., 3 Nov. 2017. This is the second and the first report of this host plant for tetranychid mites, in the world and Iran, respectively. The first report of *Capparis spinosa* Linnaeus)Capparaceae) as a host plant was for *Tetranychus gladioli* Livshits & Mitrofanov, 1980 (Mitrofanov *et al.* 1978).

Oligonychus mangiferus (Rahman & Sapra, 1940) was collected on broad leaf tree, white willow, silver poplar, black locust and mango from Razavi Khorasan, Iran by Arbabi *et al*. (2002) and Sheikholeslam-Zadeh and Sadeghi (2010). Here, this species was collected on *Cydonia oblonga* Miller (Rosaceae) from Shahrebabak, Kerman province, 30° 13' 03" N, 55° 03' 02" E, 1943 m a.s.l., 10 July 2017. This is the first report of this host plant for tetranychid mites, in the world.

ACKNOWLEDGMENTS

The authors would like to thank Mr. Sayed Mosayeb Mahdavi for his help during this study.

REFERENCES

Arbabi, M., Golmohammadzadeh-Khiaban, N. & Askari, M. (2002) Plant mite fauna of Sistan and Baluchestan and Hormozgan provinces. *Journal of Entomological Society of Iran*, 22(1): 1–17 (In Persian with English abstract).

Auger, P., Chaaban, S.B., Grissa, K.L., Khoualdia, O. & Flechtmann, C.H. (2009) Five new species of Tetranychidae (Acarina, Prostigmata) from South Tunisian oasis areas. *Zootaxa*, 2232: 29–49.

Boller, E. E. (1984) Eineanfache ausschwemm-methodezurschellen erfassung von raumilben, trips undanderen kleinathropodenim weinbau. *Schweiz zeitschriftfur Obst-und Weinbau*, 120: 249–255.

Ehara, S. (1956) Tetranychoid mites of mulberry in Japan. *Journal of the Faculty of Sciences, Hokkaido University, Series VI, Zoology*, 12: 499–510.

Khanjani, M., Khanjani, M. & Seeman, O.D. (2016) Two new spider mite species of the genus *Petrobia* (*Petrobia*) (Acari: Tetranychidae) from Iran. *Systematic & Applied Acarology*, 21(11): 1473–1495.

Mahdavi, S.M., Latifi, M. & Asadi, M. (2018) A new species of *Petrobia* (*Mesotetranychus*) (Acari: Tetranychidae) from *Ephedra* sp. (Ephedraceae) in Iran. *Systematic & Applied Acarology*, 23(6): 1148–1154.

Migeon, A. & Dorked, F. (2019) Spider Mites Web: a comprehensive database for the Tetranychidae. Available from: http://www.montpellier.inra.fr/CBGP/ spmweb (Accessed on 16 October 2017).

Mitrofanov, V. I. & Strunkkova, Z. I. (1978) A new genus and species of the family Tenuipalpidae (Trombidiformes). *Zoologicheskii Zhurnal*, 52: 1095–1099.

Müller, O.F. (1776) *Zoologiae Danicae prodromus, seu animalium Daniae et Norvegiae indigenarum characteres, nomina, et synonyma imprimis popularium*, Havniae, 282 pp.

Murray, A. (1877) *Economic Entomology, Aptera*. London, Chapman and Hall, 433 pp.

Rahman, K.A. & Sapra, A.N. (1940) Mites of the family Tetranychidae from Lyallpur with descriptions of four new species. *Proceedings of the Indian Academy of Science*, 11: 17–196.

Reck, G.F. (1952) Some fundamentals of the classification of the tetranychid mites. *Soobshcheniya Akademi Nauk Gruzinskoi SSR*, 13: 419–425.

Reck, G.F. (1948) Fauna of spider mites (Tetranychidae, Acari) from Georgia. *Trudy Zoologicheskogo Instituta Akademia Nauk Gruz S.S.R.*, 8: 175–185.

Reck, G.F. & Bagdasarian, A.T. (1949) Opisanie novyh vidov ie rodov *Petrobia* i Tetranychina (Tetranychidae, Acarina). *Dokl Akademia Nauk Armenia SSR Erevan*, 10: 189–102.

Sadeghi-Namaghi, H. (2009) Tetranychoid mites (Acari: Tetranychoidea) associated with forest trees and bushes in suburb parks in Mashhad, NE Iran. *Iranian Journal of Forest and Range Protection Research*, 7(1): 41–45 (In Persian with English abstract).

Sheikholeslamzadeh, S. & Sadeghi, H. (2010) First records of four mite species (Acari: Tetranychidae) in Iran. *Applied Entomology and Phytopathology*, 78: 121–125.

Wainstein, B.A. (1960) Tetranychoid mites of Kazakhstan (with revision of the family). *Trudy Nauchno- issledovatel'skogo instituta Zashchita Rastenii Kazakhskaja*, 5: 1–276.