A NEW SPECIES OF PETROBIA MURRAY FROM WHEAT AND OTHER CROP PLANTS IN EGYPT (ACARI: TETRANYCHIDAE)

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Abstract

A new species, Petrobia (Mesotetranychus) tritici is collected in newly reclaimed lands located in Sharkeia Governorate, Egypt. from wheat (Triticum aestivum L.), barley (Hordeum vulgare L.), sorghum (Sorghum vulgare Pers.), garlic (Allium cavanum L.), clover (Trifolium alexandrinum L.), lupin (Lupinus angustifolius L.) and sugar beet (Beta vulgaris L.). This new species is described and illustrated along with a key to the Egyptian species of genus Petrobia Murray.

Key words: Petrobia (M.) tritici n.sp., Tetranychidae, Taxonomy.

INTRODUCTION


The new mite species, Petrobia (Mesotetranychus) tritici was collected from newly reclaimed lands in Sharkeia Governorate, Egypt from El-Salheia, El-Khatara and San-Alhagar regions on wheat and barley. Also, it was recorded on sorghum, sugar beet, clover and lupin in El-Salheia, on garlic in El-Khatara and on onion in San Alhagar.

Terminology used by Pritchard & Baker (1955) was adapted to describe the new species.

Key to species of Petrobia in Egypt

(Females)

(1) Peritreme anastomose distally...... Subgenus Petrobia, dorsal body setae shorter than intervals between them, tarsus I with 23 setae, leg I longer than the body .................................................................P. (Petrobia.) latenes

* Peritreme ends simply...... subgenus Mesotetranychus, first pair of propodosomal setae longer than other propodosomals ................................(2)
Fig. 1. *Petrobia tritici* n.sp., Adult female, A. dorsum, B., palp and C. peritreme.
Fig. 2. petrobia tritci n. sp., Adult female. Legs (I-IV), respectively.
(2) Body ovate, humeral setae arise in a same row with the first dorsolateral setae, sacral setae externae shorter than clinal setae .........................
P. (Mesotetranychus) tritici n.sp

* Body rectangular, humeral setae arise latter to the first dorsolateral setae, sacral setae externae longer than clinal setae .................................
P. (Mesotetranychus) lycopersici

Petrobia tritici n.sp.
(Figs. 1 - 4)

Female (Figs. 1 & 2):

Body elongate oval, olivaceous in colour when alive, length 706 μ, including gnathosoma, 579 μ, excluding gnathosoma, width 381 μ; dorsal setae broadly lanceolate serrate arising from normal alveoli.

Propodosoma: With 3 pairs of setae, the first pair (verticals) about two times the second and the third subequal propodosomals, longitudinal striae occur medially and being irregular in the area between ocelli and body margin, with two pairs of ocelli.

Hysterosoma: With 10 pairs of setae, the 10th pair (clunals) is the longest, about twice as long as the rest, with looped transverse striae medially but longitudinal and irregular at body margin.

Gnathosoma: Stylophore rounded anteriorly, peritreme terminates in a simple bulb.

Legs: Leg I slightly shorter than body, 602 μ, long, leg II 404μ, leg III 396, leg IV 480μ, empodia claw-like with two rows of medioventral tenant hairs, true claws pad-like, half length of empodium, each with tenant hairs, setae on leg podomeres (including solenidion in parentheses) + duplex setae as follows: coxae (2-2-1-1), trochanters (1-1-1-1), femora (9-6-4-4), genua (5-5-4-4), tibiae (13 (1)-9-9-9) and tarsi 19 (1) + 2 duplex -15 + 1 duplex -14 (1) -14 (1).

Male (Figs. 3 & 4):

Body elongate oval, yellow greenish in colour when alive, length 533μ, including gnathosoma, 420 μ, excluding gnathosoma, width 236 μ, peritreme anastomosing distally, penultimate palp segment with 5 setae, dorsal setae subequal, serrate, strong and tapering distally.

Propodosoma with 3 pairs of setae, the first (verticals) being twice as long as the other two subequal propodosomals, with looped striae medially, being transverse at propodosomal posterior end and irregular at body margin to reach the end of hysterosoma.
Fig. 3. *Petrobia tritici* n.sp., Adult male. A. dorsum, B. palp, C. aedeagus and D. venter of idiosoma.
Hysterosoma with 10 pairs of setae, punctuation occur in the area of the first two rows of setae, hooked striae occur medially at the rest of the body.

Aedeagus elongate and tapering.

Ventrally, opisthosoma with two pads.

Legs: Leg I, longer than body, 762 μm, long, leg II, 511 μm, leg III, 472 μm; leg IV, 617 μm, empodia claw-like with two rows of medioventral tenent hairs, true claws pad-like, each with tenent hairs. Setae on leg podomers (including solenidia in parentheses) + duplex setae as follows: coxae (2-2-2-1-1), trochanters (1-1-1-1), femora (9-6-4-3), genua (5-5-4-4), tibiae (33 (1) + 1 duplex -9-9-9) and tarsi [27 + 3 duplex -15 (1) + 1 duplex -14 (1) -14 (1)].

Holotype: Female found on wheat, El-Salhia locality, Sharkeia Governorate, Egypt.

Paratypes: Several females on the same host, El-Salhia and El-Khatara localities, Sharkeia Governorate, Egypt.

Allotype: Male with the same data of holotype and paratypes.

Diagnosis:

This species stands near Petrobia (Mesotetranychus) nathoriae Tuttle, Baker and Abatiello but differs in the shape of the dorsal setae, striae and ocelli. It is characterized by that the first pair of propodosomal setae (ventrales) being twice as long as the other two subequal propodosomals. Clunial setae nearly twice as long as the other subequal dorsoentral setae.

REFERENCES

نوع جديد من جنس Petrobia Murray على القمح ونباتات محاصيل أخرى في مصر (الاكوارسات: فصيلة الحلم العكوبلي النادئ)

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تم جمع أفراد هذا النوع الجديد Petrobia (Mesotetranychus) triticus في القمح والشعير والسورجوم والذرة والبرسيم المصري والترس وبعض الأنواع الأخرى في الأراضي الحديثة. وقد وصف هذا النوع الجديد ورسمه مورفولوجيًا كما تم وضعه في مفتاح تصنيفي إلى جانب الأنواع التابعة لنفسه في مصر.