Zagazig J.Agric. Res., Vol. 29 No.(1) 2002 *325-330*

A NEW SPECIES OF THE GENUS *NEOSEIULUS* HUGHES ON SOYBEAN IN EGYPT (ACARINA: PHYTOSEIIDAE)

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Received 5 / 2 / 2002 *Accepted 27 / 2 / 2002*

ABSTRACT: During the present study a new phytoseiid mite *Neoseiulus glycini* n.sp. is described and illustrated. It was found in association with the tetranychid mites, infesting the soybean *Glycine max* L. plants, in Behira governorate, Egypt.

Key words: Phytoseiidae, *Neoseiulus glycini* n.sp. mites, *Glycine max*, Egypt.

INTRODUCTION

In Egypt, during studies carried out by Hassan (1995) and Mostafa (1998) on phytoseiid mites, eight species of the genus *Neoseiulus* Hughes were recognized. The present paper deals with description of an additional undescribed species of this genus in the acarine fauna of Egypt. It was collected from the soybean leaves *Glycine max* L. in Behira governorate, Egypt. The generic citations used in this paper follow Muma & Denmark (1968), Muma *et al* (1970), Zack (1969) and Tuttle & Muma (1973). Other terminology follows that of Schuster & Pritchard (1963) and Chant & Hansell (1971). The terms applied to the setae on idiosoma are those of Chant and McMurtry (1994). All measurements are given in microns (μ). The types are deposited in the collection of Plant Protection Department, Faculty of Agriculture, Zagazig University, Egypt.

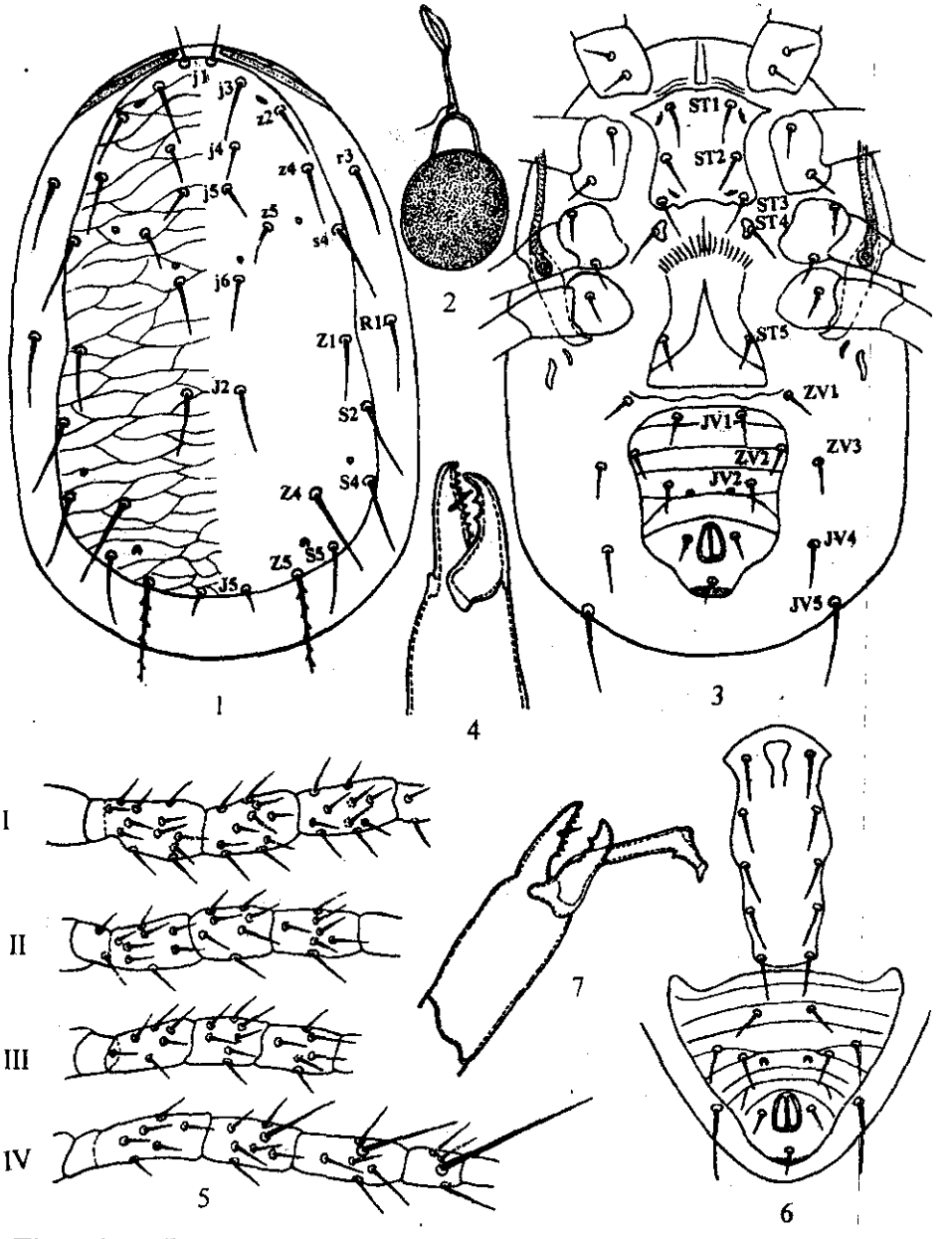
Family: Phytoseiidae.
Subfamily: Amblyseiinae.
Genus: *Neoseiulus* Hughes.
Neoseiulus glycini n.sp.
(Figs. 1 – 7)

Diagnosis: This species is closely related to *N. fallacis* Garman (Tuttle & Muma 1973) and *N. cucumeris* Oudemans (Hassan 1995), but differs in having, dorsal shield with 5 pairs of distinct pores, setae j4 and j5 short and subequal in length to j1 and z5; seta Z5 finely serrate and subequal in length to Z4. Peritremal distal end reaching the alveoli of setae j1. Spermatheca with bowel – shaped cervix and relatively long major duct. The fixed digit of chelicera differs in having 8 teeth and a pilus dentilis and movable digit with 2 teeth. Macrosetae on leg IV much longer.

Female (Figs. 1-5):

Dorsum (Fig. 1): Body broadly ovate, yellow whitish when alive, 435 μ long and 275 μ at its greatest width. Dorsal shield sclerotized, slightly concave laterally in the middle, covered with distinctive network reticulations over entire surface; bearing 17 pairs of simple setae, of which 8 pairs laterals, 6 pairs dorsocentrals including j1 and J5 and 3 pairs mediolaterals. All dorsal setae smooth except setae Z5 which seems to be finely serrate and appearing to be longer than rest of the dorsal setae. Five pairs of pores occurring on the dorsal shield, of which a crescentic pair, a pair of rather elongate oval pores and 3 pairs of minute circular pores. Sublateral setae r3 and R1 on lateral integument. Measurements of dorsal and sublateral setae as follows: j1 (25), j4 (26), j5 (27), j6 (38), J2 (46), J5 (15), j3 (43), z2 (36), z4 (43), s4 (54), S2 (55), S4 (54), S5 (46), Z5 (66), z5 (28), Z1 (47), Z4 (63), r3 (48) and R1 (50) μ. Peritreme extending anteriorly to level of seta j1 (Fig. 1).

Ventrally (Fig. 3): Sternal shield smooth, slightly longer than wide, measuring 84 μ long and broadest width 75 μ, bearing 3 pairs of subequal setae ST1, ST2, ST3 (19 – 21 μ) and 2 pairs of lyriform pores. Metasternal setae ST4 on small bean–shaped plates. Genital shield smooth, truncated posteriorly, with genital seta ST5. Ventrianal shield subpentagonal, its anterior margin rounded, covered with transverse striae, measuring 111



Figs. 1 – 7. ***Neoseiulus glycini* n.sp.,** female : 1- Dorsal view. 2 – Spermatheca. 3 – Ventral view. 4 – Chelicera. 5 – Femur, genu, tibia of legs I – IV and basitarsus IV. Male: 6 – Sternogenital and ventrianal shields. 7 – Spermatodactyl.

μ long, with broadest width of 106 μ; with 3 pairs of preanal setae JV1, JV2, ZV2 and a pair of crescentic pores posteromediad to seta JV2. Four pairs of setae ZV1, ZV3, JV4, JV5 on posteroventral integument surrounding ventrianal shield. Setae JV5 much longer (53 μ) than others. Two pairs of elongate metapodal plates, where the posterior pair longer and wider than the anterior one; the posterior pair long 23 μ, whereas the anterior one of 11 μ.

Spermatheca (Fig. 2): Cervix relatively short, bowel shaped, 12 μ long; the selender tubular major duct is 23 μ long, ending in a broad, spindle- shaped structure; minor duct conspicuous; the vesicle is relatively large and rounded.

Chelicera (Fig. 4): Fixed digit bears 8 teeth and a pilus dentilis, while the movable digit with 2 distinct teeth.

Legs (Fig. 5; I – IV): Chaetotaxic formulae of femora, genuae and tibiae as follows: 12 – 10 – 6 – 6; 10 – 7 – 7 – 6 + one macroseta (33 μ); 10 – 7 – 6 – 5 + one macroseta (41 μ), in addition to another macroseta on basitarsus IV of 71 μ.

Male (Figs. 6 &7):

Smaller than female, it measures 321 μ in length and 208 μ in width. Sternogenital shield smooth, of 151 μ long, with broadest width of 64 μ; bearing 5 pairs of long simple setae. Genital aperature present near the anterior margin of sternogenital shield. Ventrianal shield subtraingular, it measures 120 μ long and broadest width of 149 μ, striated allover, it bears 3 pairs of preanal setae and a pair of crescentic pores (Fig. 6). Spermatodactyl fused to the movable digit of chelicera with an elongate shank and a short terminal foot (Fig. 7).

Holotype: A female collected from soybean leaves *Glycine max* L. at Kom–Hamada district, Behira governorate in Egypt at 12 August 2001.

Allotype: A male collected from the above mentioned host plant.

Paratypes: Five females and three males collected from the above mentioned host plant and locality.

ACKNOWLEDGMENT

Sincere thanks are extended to Prof. Dr. A.M.

Metwally, Zoology & Nematology Department, Faculty of Agriculture, Al- Azhar University for his invaluable advices and the confirmation of the new species.

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نوع جديد تابع لجنس *Neoseiulus* على فول الصويا فى مصر (أكارينا – فيتوسيدا)

عبد العزيز النشرتى باشه
قسم وقاية النبات – كلية الزراعة – جامعة الزقازيق

تضمنت هذه الدراسة وصفاً مورفولوجياً تفصيلياً للنوع الجديد من الحلم الفيتوسيدى *Neoseiulus glycini* n. sp. والذى لم يوصف من قبل، حيث وجد مصاحباً للحلم التترانكيدى على نباتات فول الصويا بمحافظة البحيرة فى جمهورية مصر العربية.