

RE-DESCRIPTION OF THE CRAB SPIDER, *Thomisus citrinellus* Simon, 1875 (ARANEAE, THOMISIDAE) FROM EGYPT

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ABSTRACT

Two males and one female of *Thomisus citrinellus* Simon, 1875 (Araneae: Thomisidae) were re-described. The specimens were collected from Egypt. The earlier description was done by Levy in 1985 based on specimens collected from Israel.

INTRODUCTION

Thomisidae is a large family distributed worldwide, comprising 174 genera and 2151 species (Platnick, 2012) all over the world. Of these, 10 genera and 25 species are known from Egypt (El-Hennawy, 2006). Genus *Thomisus* Walckenaer, 1805 includes 22 species from Africa (Platnick, 2012) and they are as follows: *albohirtus* Simon, 1884; *australis* Comellini, 1957; *bidentatus* Kulczyn'ski, 1901; *blandus* Karsch, 1880; *candidus* Blackwall, 1866; *citrinellus* Simon, 1875; *congoensis* Comellini, 1957; *dalmasi* Lessert, 1919; *daradioides* Simon, 1890; *daradioides nigroannulatus* Caporiacco, 1947; *granulatus* Karsch, 1880; *kalaharinus* Lawrence, 1936; *kiwuensis* Strand, 1913; *litoris* Strand, 1913; *machadoi* Comellini, 1959; *obscuratus* Caporiacco, 1947; *onustus meridionalis* Strand, 1907; *schantzei* Simon, 1910; *scrupeus* (Simon, 1886); *steningi* Pocock, 1900; *tripunctatus* Lucas, 1858 and *zuluanus* Lawrence, 1942.

The members of this family are commonly called the crab spiders as the first two legs are strong and laterigrade. They are usually found on trees, shrubs, and grasses, especially on flowers, as well as in leaf litter and under stones on the ground (Foelix, 1996).

Genus *Thomisus* has a truncated cephalothorax in front, with the upper fore-corners strongly and conically protuberant and divergent, bearing the lateral eyes. Eyes very small, abdomen narrow and truncated in front, enlarging to a considerable width behind, where it forms a short blunt conical protuberance. Legs long, I and II much longer than III and IV. Typical crab-like appearance (Tikader & Malhotra, 1980).

Two males and one female of the spider, *Thomisus citrinellus* were examined and re-described.

Thomisus spinifer O.P. Cambridge, 1872, *Proc. Zool. Soc. Lond.*, p.308 (preoccupied). *Thomisus citrinellus* Simon, 1875, *Les Arachnides de France*, 2:253; Roewer, 1954, *Katalog der Araneae*, 2(1): 857. Bonnet, 1959, *Bibliographia Araneorum*, 2(5) :4578. Levy, 1973, *Israel J. Zool.* 22:127.

Earlier, Levy (1985) described *citrinellus* in short and hence, we are re-describing it for reliable diagnoses of this species.

MATERIALS AND METHODS

Descriptions are based on specimens previously collected from apple trees, grape, olive and orange orchards from Egypt. They were collected from these habitats by a method of branch shaking. These specimens were preserved in 70% ethanol. Two males and one female specimens were visually examined and photographed by using stereo-microscope fitted with a camera MIPS. Measurements were recorded in millimeters using the digital mini-microscope.

Coxa and trochanter are measured combinely as both these segments are very small to measure separately.

The abbreviations used in this paper are as follows: AME- anterior median eye; ALE- anterior lateral eye; PME- posterior median eye; PLE- posterior lateral eye; MOQ- median ocular quadrangle.

OBSERVATIONS AND RESULTS

Thomisus citrinellus, Simon, 1875 – Male (Fig 1. a, c, e)

General: Cephalothorax, abdomen and legs are brown in color, body length 3 mm, cephalothorax 1.152 mm long, 1.363 mm wide; abdomen 1.363 mm long, 1.000 mm wide; palpal organ 0.151 mm long and 0.424 mm wide, male smaller than the female in size.

Cephalothorax: as long as wide, wider posteriorly and narrowing anteriorly, covered with strong, erect spines, lateral margins of the cephalothorax having longitudinal conspicuous spines.

Eyes: eight eyes in two rows; both recurved, situated on tubercles; encirculated by yellowish-brown triangle, ocular area with laterally projected large horn like protuberance between lateral eyes and raised; MOQ wider posteriorly; PME are slightly smaller in size than the AME; PLE slightly smaller than the ALE.

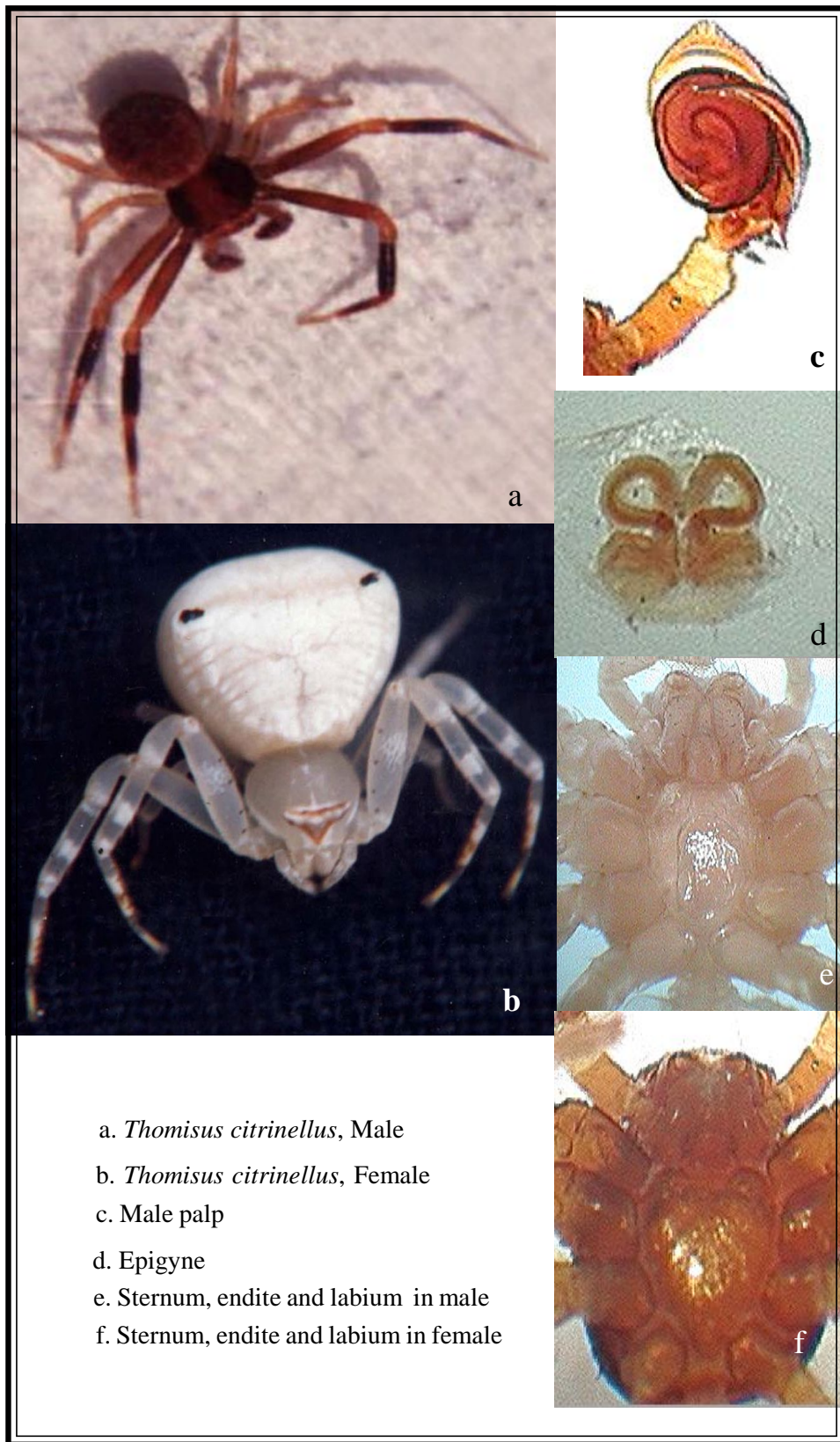
Clypeus: long, sub-rectangular in shape.

Sternum: heart-shaped, pale yellowish, as wide as long, posterior end truncated between coxae IV.

Chelicerae: chelicerae small, brown in color without teeth and with long fangs.

Mouth parts: endites longer than wide, anteriorly covered with tuft of hairs, labium fused with sternum.

Legs: laterigrade, the first two legs are longer and stout than the other two legs, tibiae and metatarsi of first and second legs without lateral spines, tarsae with two claws, leg formula 1243.



Leg measurements (Male):

Leg	I	II	III	IV
Coxa & Trochanter	0.363	0.363	0.302	0.363
Femur	1.272	1.243	0.400	0.609
Patella	0.394	0.363	0.333	0.394
Tibia	1.183	1.183	0.454	0.546
Metatarsus	0.817	0.878	0.333	0.363
Tarsus	0.576	0.515	0.394	0.304
Total Length	4.605	4.545	2.216	2.579

All measurements are in mm

Abdomen: pentagonal in shape; covered with erect spines, dorso-laterally longitudinal striations and dorso-distally transverse striations are visible.

Spinnerets: three pairs of two segmented, anterior pair elongated, median pair smallest.

Colulus: reduced to small with short setae.

Male Palpus (Fig 1. c): tibia with one oval ventral apophysis and two retrolateral apophysis which are slightly curved with dark tips surrounded by long hairs. Embolus starts proximally, runs distally and turns retrolaterally ending midway into a pointed sclerotized tip. Retrolaterally tegulum ends downwards and is half of the length of tibia. Tutaculum is intact. Cymbium is covered with hairs.

***Thomisus citrinellus*, Simon, 1875 - Female** (Fig 1. b, d, f)

General: Cephalothorax, abdomen and legs are white in color, body length 4.363 mm, cephalothorax 2.213 mm long, 2.061 mm wide; abdomen 2.272 mm long, 2.213 mm wide, white in color, bigger than the male in size.

Cephalothorax: as long as wide, wider posteriorly and narrowing anteriorly,

Eyes: brown in color, eight eyes in two rows; both recurved, situated on tubercles, ocular area with laterally projected large horn like protuberance between lateral eyes and raised; MOQ wider posteriorly; PME are smaller than the AME; PLE slightly smaller than the ALE.

Clypeus: long, sub-rectangular in shape.

Sternum: heart-shaped, pale yellowish, longer than wide, posterior end truncate between coxae IV, elongated, parallel each other, laterally truncated, antero-laterally keratinized.

Chelicerae: chelicerae small, brown in color without teeth and with long fangs.

Mouth parts: Labium longer, anteriorly covered with tuft of hairs, fused with sternum

Legs: laterigrade; tarsae with two claws; the first two legs are longer and stout than the other two legs. Tibiae and metatarsi of first and second legs provided with two and four pairs of ventral spines respectively. Leg formula 1243.

Leg measurements (Female):

Leg	I	II	III	IV
Coxa & Trochanter	0.424	0.787	0.394	0.515
Femur	1.817	1.799	0.546	1.272
Patella	0.970	0.817	0.302	0.454
Tibia	1.424	1.318	0.667	0.848
Metatarsus	1.061	0.909	0.546	0.909
Tarsus	0.878	0.817	0.515	0.878
Total Length	6.574	6.447	2.970	4.875

Abdomen: whitish, pentagonal in shape; as long as wide. Overlapping the base of cephalothorax in front, slightly narrowing in front with a deep white irregular band frontally and laterally and black-brown dots present on lateral abdominal humps, three pairs of sigilla, dorso-laterally longitudinal striations, posterior one fourth of abdomen has 6 to 8 transverse striations.

Spinnerets: three pairs of two segmented, elongated, anterior pair largest, median pair smallest.

Colulus: reduced to small with short setae.

Female Epigynum (fig 1. d): spermathecae rectangular, spermathecal tubes highly coiled and fertilization ducts enlarged to form circular way ending separately as fertilization ducts having independent orifices.

DISCUSSION

Thomisus citrinellus Simon, 1875 was named earlier as *Thomisus spinifer* by Cambridge (1872). However Levy (1985) confirmed it as *Thomisus citrinellus*. He described it on the basis of pedipalp and epigyne.

Body length of both male and female were 3 mm and 4.363 mm respectively. However, as per Levy’s 1985 descriptions, length of male and female were 2.1-2.6 mm and 5.0-7.3 mm respectively. According to Levy’s 1985, coloration whitish-yellow, female with round black spot on each conical protuberance on posterior corners of opisthosoma, this agrees with our description, however there are black-brown dots on lateral abdominal humps and female is with whitish instead of white-yellow. The adults are found throughout the year as stated by Levy (1985). The

pedipalp and epigyne are as described by Levy (1985) however, the pedipalp is slightly oblong in the present specimens.

Distribution: Egypt, Iraq, Israel, Spain, Yemen, south France.

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