

First report of the genus and species *Cephalothrips monilicornis* (Reuter) (Thysanoptera: Phlaeothripidae) from Doha, Qatar

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MIRAB-BALOU, M. & ZAIDI, F.: *First report of the genus and species Cephalothrips monilicornis* (Reuter) (Thysanoptera: Phlaeothripidae) from Doha, Qatar.

Abstract: The genus *Cephalothrips* Uzel (Thysanoptera: Phlaeothripidae) with eight species in the world, is one the small group in subfamily Phlaeothripinae. Here, *Cephalothrips monilicornis* (Reuter, 1880) is reported for the first time from Doha, Qatar. Diagnostic morphological characters and geographical distribution of the newly recorded species are briefly discussed. The specimens examined are deposited in the collection of Department of Plant Protection, College of Agriculture, Ilam University, Iran (ILAMU).

Keywords: Phlaeothripinae, Cephalothrips, new record, Qatar.

Introduction

The Thysanoptera with more than 6000 known species is one of the orders of insects distributed throughout the world. This order includes nine families for living species (plus three fossil families) belonging to two suborders: Terebrantia and Tubulifera. The family Phlaeothripidae is the only family in suborder Tubulifera. This family currently comprises about 3500 known species in the world. Recently, MIRAB-BALOU et al. (2014) listed four genera and nine species of thrips from Doha, Qatar, of which one of them is belonging to subfamily Phlaeothripinae. Here, the second genus of Phlaeothripinae is reported for this country for the first time.

The genus *Cephalothrips* was originally established by UZEL (1895), with *Phloeothrips monilicornis* Reuter as its type species (COTT 1956, STANNARD 1968). Eight species are included in the genus now (Table 1) (WATSON 1926, ZUR STRASSEN, 1968) and here is recorded for Qatar for the first time. The type species *Phloeothrips monilicornis*, was known distribute in Iran, Europe, North America, China and Siberia (COTT 1956, ZUR STRASSEN 1967, STANNARD, 1968, CAO AND FENG 2011, MIRAB-BALOU 2013).

Materials and methods

Specimens were collected from Doha, Qatar, in 2013. The specimens mounted on slide using the method of Mirab-Balou and Chen (2010). All descriptions, measurements and photos were made with a Leica DM IRB microscope, a Leica MZ APO microscope with a Leica Image 1000 system, EVOS digital inverted microscope and a Nikon Y-IDT microscope with a Q-image CCD. The specimens are deposited in the collection of Department of Plant Protection, College of Agriculture, Ilam University, Iran (ILAMU).

Table 1. Checklist of *Cephalothrips* species in the world

<i>albostrigatus</i> zur Strassen	Morocco
<i>brachychaitus</i> Han	China
<i>coxalis</i> Bagnall	Iran, France
<i>fuscus</i> Faure	South Africa
<i>hesperus</i> Hood	USA
<i>longicapitus</i> Borzykh	Kyrgyzstan
<i>merrilli</i> Watson	Cuba
<i>monilicornis</i> (Reuter)	Qatar, Iran, Russia, China, Europe, North America

Results

Suborder Tubulifera

Family Phlaeothripidae

Genus *Cephalothrips* Uzel

Cephalothrips Uzel 1895: 244. Type species *Phloeothrips monilicornis* Reuter 1885.

Diagnosis: Macropterous, micropterous or apterous. Small size, smooth, usually with eyes extending ventrally, with pedicel of antennal segment VII broad, without praepectal plates. Head about one and one-third times longer than broad, broadest at about middle of cheeks, generally smooth, weakly transversely striate; often ventral portion of eyes posteriorly elongated to a point. Ocelli present only in macropterous forms. Antennae short, 8-segmented, segments VII and VIII each with broad pedicels. Mouth-cone broadly rounded; maxillary stylets sigmoidal, retracted far into the head, not touching in the center of the head. Pronotum weakly developed, about one and one-half times broader than median length, about two-thirds the head length, without a median longitudinal thickening. All major setae present. Wings when fully developed not greatly swollen basally, parallel-sided, sparsely fringed. Legs short; anterior femora slightly swollen in females, more so in males, femora and tibiae unarmed; fore tarsi with a short, sharp tooth on the inner surface. Fenna present, small, trapezoidal. Abdomen not enlarged, with any lateral processes in either sex, lateral setae not set on produced posterior angles of their respective segments. Tube short, about two-thirds head, anal setae shorter than tube.

Cephalothrips monilicornis (Reuter)*Phloeothrips monilicornis* Reuter, 1880.

(Figures 1-5)

Material examined: Qatar, Doha: 3 females, Rumeilah Park, from grasses (Poaceae), 27.viii.2013, Leg. M. Mirab-balou, (in ILAMU).

Diagnosis: Female apterous (Fig. 1). Body and legs brown; all tarsi and apex of all tibiae light yellow (Fig. 4); antennal segments I–II and VII–VIII dark brown, III pale brown, IV–VI pale brown with yellow in basal half (Fig. 2).

Head distinctly longer than wide (about 1.3 times), with eyes large and prolonged posteriorly on ventral surface; postocular setae small, wide apart; maxillary stylets retracted to postocular setae; postocular setae short, blunted at apex; postocellar setae small, pointed at apex; ocelli absent (Fig. 3). Mouth cone short and rounded. Antennae 8-segmented, segment III with one sensorium, IV with two sensorial.

Pronotum with only two pairs of major setae, epimerals weakly capitate, posteroangulars blunt at apex; prosternal basantra absent. Metanotum without sculpture. Mesopraeosternum eroded medially into two triangles. Fore tarsus with small pointed tooth. Fore wings parallel and without duplicated cilia in macropterous form.

Pelta D-shaped, with a pair of campaniform sensilla (Fig. 5). Abdominal tergites II–VII with weak wing retaining setae; tergite IX setae S1 and S2 weakly capitate, shorter than basal width of tube; anal setae shorter than tube.

Female macroptera: Color and structure similar to apterous female. But ocelli present; fore wings without duplicated cilia, sub-basal wing setae short; metanotum with longitudinal reticulation laterally.

Measurements in μm (width): Body ♀ 2200(395). Head 260(210); distance between compound eyes 90. Pronotum 160(280). Tube 140(78), setae S1 60, S2 60, S3 60. Antennal segments I–VIII as follows: I 45(40), II 54(36), III 52(33), IV 57(36), V 54(34), VI 51(31), VII 44(26), and VIII 36(16).

Distribution: Iran, China, Siberia, Europe, North America, new record for Qatar.

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Figures 1-5. *Cephalothrips monilicornis*. (1) Female, apterous; (2) Antenna; (3) Head; (4) Fore leg; (5) Meso- and metanotum and pelta

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