



Scientific Note

New Faunistic records of cockroaches (Insecta: Blattodea) from Oman

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Abstract. The knowledge of Blattodea from Oman is still incipient. One species of cockroaches are reported from Oman so far and this indicates the large blank in our knowledge in this order when compared to recorded species from other neighboring countries in the Arabian Peninsula. Blattodea have been collected at various localities in Sultanate of Oman with different sampling artifacts. The present communication records five species of cockroaches from Oman, namely *Blattella biligata* (Walker, 1868), *Heterogamisca* Bey-Bienko, 1950, *Pycnoscelus surinamensis* (Linnaeus, 1758), *Tivia fusca* Bohn, 2008 from northern Oman and *Neostylopyga rhombifolia* (Stoll, 1813) from southern Oman.

Keywords: *Blattella*; *Heterogamisca*; *Neostylopyga*; *Pycnoscelus*; *Tivia*.

Cockroaches are often described as abundant and diverse insects from tropical regions (SCHAPHEER *et al.* 2017), but can also be found in drier environments such as *Heterogamisca* Bey-Bienko, 1950 and *Polyphaga aegyptiaca* (Linnaeus, 1758) (Corydiidae), which inhabit sand dunes in the Arabian Peninsula (BOHN 2008). Despite being popularly recognized as household pests, the vast majority of these species never come into contact with humans, as less than 1% of all described cockroach species are synanthropic (SCHAPHEER *et al.* 2017). Wild cockroaches which live in diverse natural ecosystems play ecologically key-roles (BELL *et al.* 2007). For instance, they contribute to nutrient cycling, organic matter turnover (GENG & CÔTÉ 2002), as they are detritivores (TARLI *et al.* 2014), florivores (BALL *et al.* 1942), xylophagous (PELLENS *et al.* 2002). Furthermore, they also may be pollinators as well (VLASÁKOVÁ *et al.* 2008). It is proposed that in these arid and semiarid areas cockroach survival may be dependent on its strict association with native plant species (SCHAPHEER *et al.* 2017).

The cockroach fauna of the Arabian Peninsula was mainly addressed by three works: GRANDCOLAS (1994), BOHN & HARTEN (2006) and BOHN (2008). The knowledge of the cockroach fauna from Oman is still incipient. *Shelfordella arabica* Bey-Bienko, 1938 is the only species recorded in Oman (BOHN 2008). We are not going to report in this paper any of the synanthropic species [*Periplaneta americana* (Linnaeus, 1758), *Blatta orientalis* Linnaeus, 1758, *Blattella germanica* Linnaeus, 1767 and *Supella longipalpa* (Fabricius, 1798)] which occur inside or near human buildings and have world-wide distribution. We have observed these species in several localities at Oman in urban area. The parthenogenetic *Pycnoscelus surinamensis* (Linnaeus, 1758) can be considered as synanthropic species, but it mainly lives outdoors in gardens, thus we will list here. All species in this paper were collected from northern Oman except the *Neostylopyga rhombifolia* (Stoll, 1813) from south Oman (Dhofar region). The faunal of Dhofar region is strongly

affected by African fauna (AL-JAHDHAMI 2021).

The specimens were collected using a sweeping net, an aspirator, handpicking and yellow pan water traps. The collected specimens were killed with ethyl acetate or ethanol 70% and were deposited dry in the private collection of the author except for the *Heterogamisca* Bey-Bienko which were deposited at the Natural History Museum Oman. The identification of the cockroaches' species was based in the identification key to genera and species in the Arabian Peninsula present in the guide of BOHN (2008). The specimens were collected legally under the Permit n° 6210/10/87 issued by the Ministry of Environment and Climate Affair. In the list below, the species are listed alphabetically. Material examined are presented following a standardized format: town, locality name, geographic coordinates, date of collection (day, month, year), number of specimens and collecting method.

SPECIES LIST

Blaberoidea Saussure, 1864

Ectobiidae Brunner von Wattenwyl, 1865

Blattellinae Karny, 1908

Blattella Caudell, 1903

Blattella biligata (Walker, 1868) (Figure 1)

Material examined: Al Mudhaibi, Samad Ashan, 22.827N 58.151 E, 7♂, 27.vi.2018, handpicking, leg. A. Al-Jahdhami.

Distribution: Known from Israel, Iraq, Iran, Yemen, United Arab Emirates, Saudi Arabia, Kenya, Democratic Republic of the Congo, Mozambique, South Africa (Transvaal province), Afghanistan, China, Sri Lanka; India, Pakistan, Taiwan and

Burma (BECCALONI 2014). New record for Oman.

Blaberidae Saussure, 1864

Pycnoscelinae

Pycnoscelus Scudder, 1862

Pycnoscelus surinamensis (Linnaeus, 1758) (Figure 2).

Material examined: Al Mudhaibi, Samad Ashan, 22.827N 58.151 E, 4 ♂, 3.v.2019, handpicking, leg. A. Al-Jahdhami.

Distribution: Circumtropical in distribution and known from Yemen in the Arabain Peninsula (BOHN 2008). New record for Oman.

Corydioidea Saussure, 1864

Corydiidae Saussure, 1864

Corydiinae Saussure, 1864

Heterogamisca Bey-Bienko, 1950 (Figure 3)

Material examined: from northern Oman (not precise location), 1 nymph, (undated).

Distribution: Morocco, Iran, Iraq, Afghanistan, Jordan, Palestine, Algeria and Saudi Arabia (BECCALONI 2014). New

record for Oman.

Tiviinae

Tivia Walker, 1869

Tivia fusca Bohn, 2008 (Figure 4)

Material examined: Al Mudhaibi, Samad Ashan, 22.827N 58.151 E, 3 ♂, 3.v.2019, handpicking and sweep net, leg. A. Al-Jahdhami.

Distribution: Known only from UAE (BOHN 2008). New record for Oman.

Blattoidea Latreille, 1810

Blattidae Latreille, 1810

Blattinae Latreille, 1810

Neostylopyga Shelford, 1911

Neostylopyga rhombifolia (Stoll, 1813) (Figure 5)

Material examined: Rakhyut, 16.744N 53.407 E, 1 Nymph, 10.ii.2018, handpicking; Ain Hamran, Taqah, 17.096 N 54.281 E, 1 Nymph, 3.x.2020, yellow pan trap, all leg. by Ali Al-Jahdhami.

Distribution: Circumtropical in distribution and the genus is



Figures 1-5. Habitus of Blattodea: 1. *Blattella biligata* (Walker, 1868); 2. *Pycnoscelus surinamensis* (Linnaeus, 1758); 3. *Heterogamisca* Bey-Bienko, 1950; 4. *Tivia fusca* Bohn, 2008; 5. *Neostylopyga rhombifolia* (Stoll, 1813).

known from Yemen in the Arabian Peninsula (BECCALONI 2014).
New record for Oman.

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