

Dermaptera of Iran with description of *Euborellia angustata* sp. nov.

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Abstract. A check-list of the Dermaptera of Iran is presented based on published data and revision of the collection deposited in the National Museum, Praha, Czech Republic. The collection includes 114 specimens in 8 species, of which one, *Forcipula quadrispinosa* (Dohrn, 1863), is reported for the first time from Iran, and one, *Euborellia angustata* sp. nov., is described as new. The total number of species known from Iran is 23.

Key words. Dermaptera, Anisolabididae, Labiduridae, Spongiphoridae, Forficulidae, distribution, faunistics, taxonomy, description, new species, Iran, Palaearctic Region

Introduction

The first preliminary list of Dermaptera species reported from Iran was published by KOČÁREK et al. (2007), who summarised available faunistic data from expedition reports and collection inventories (SEMENOV 1902, BURR 1912, BUXTON 1921, ČEJCHAN & MAŘAN 1974, MOFIDI-NEYESTANAK 2000) and from reports that consider the Dermaptera as important pests of crops in Iran (MODARRES AWAL 1997, CAMPOBASSO et al. 1999, RAHIMI et al. 2002). In addition, the paper presented a list of 171 new locality records based on recently collected specimens. Further information is contained on comprehensive web pages of Fabian Haas (HAAS 2011). Recently, GARAI (2010) and SAKENIN et al. (2010) published a few more faunistic records. Nevertheless, the current knowledge on distribution and faunistics of the Dermaptera in Iran is insufficient, and the occurrence of many other species is possible.

The aim of this study is to supplement current knowledge of the Dermaptera from Iran based on the material deposited in the collection of National Museum, Praha, Czech Republic. The material was collected during three entomological expeditions to Iran (in 1970, 1973, and 1977), which were conducted by the museum's Department of Entomology (HOBERLANDT 1974, 1981, 1983). Only a part of this material (that from the first expedition) has been previously published (ČEJCHAN & MAŘAN 1974).

Material and methods

Monographs of STEINMANN (1986, 1989b, 1990a, 1993) and SRIVASTAVA (2003a) were used for identification of the specimens, and the nomenclature and morphological terminology follows that used by STEINMANN (1986, 1989b, 1990a, 1993). All mentioned specimens were identified by the author of the contribution. The comprehensive web page of Fabian Haas (HAAS 2011) was used to obtain data about the geographical distribution of the mentioned species.

The specimen of *Euborellia angustata* sp. nov. was dry-mounted, examined, studied, and photographed with an Olympus SZ61 stereomicroscope (20–40× magnification) equipped with an ocular grid and an Olympus E-410 camera. Micrographs of 10 layers of focus of the same specimen were combined with Quick Photo Camera 2.3 software. The type specimen was mounted on a label, and dissected body parts (subgenital plate) were mounted with methylcellulose glue on the same board as the specimen. A genital armature was mounted in dimethyl hydantoin formaldehyde resin (DMHF, a water-soluble mounting medium) on the same label as the specimen.

All records were arranged in the following order: province (alphabetically ordered), town, local place, geographical coordinates, altitude, date of collection, the number of individuals (♂ – male, ♀ – female, n – nymph), and the collector's name. If the collector's name was absent, the material was collected during the entomological expedition to Iran conducted by the Department of Entomology of the National Museum of Praha, and the name of locality follows the code of locality according to HOBERLANT (1974, 1981, 1983). All specimens studied are deposited in the National Museum, Praha, Czech Republic (NMPC).

Taxonomy

Euborellia angustata sp. nov.

(Figs. 1–6)

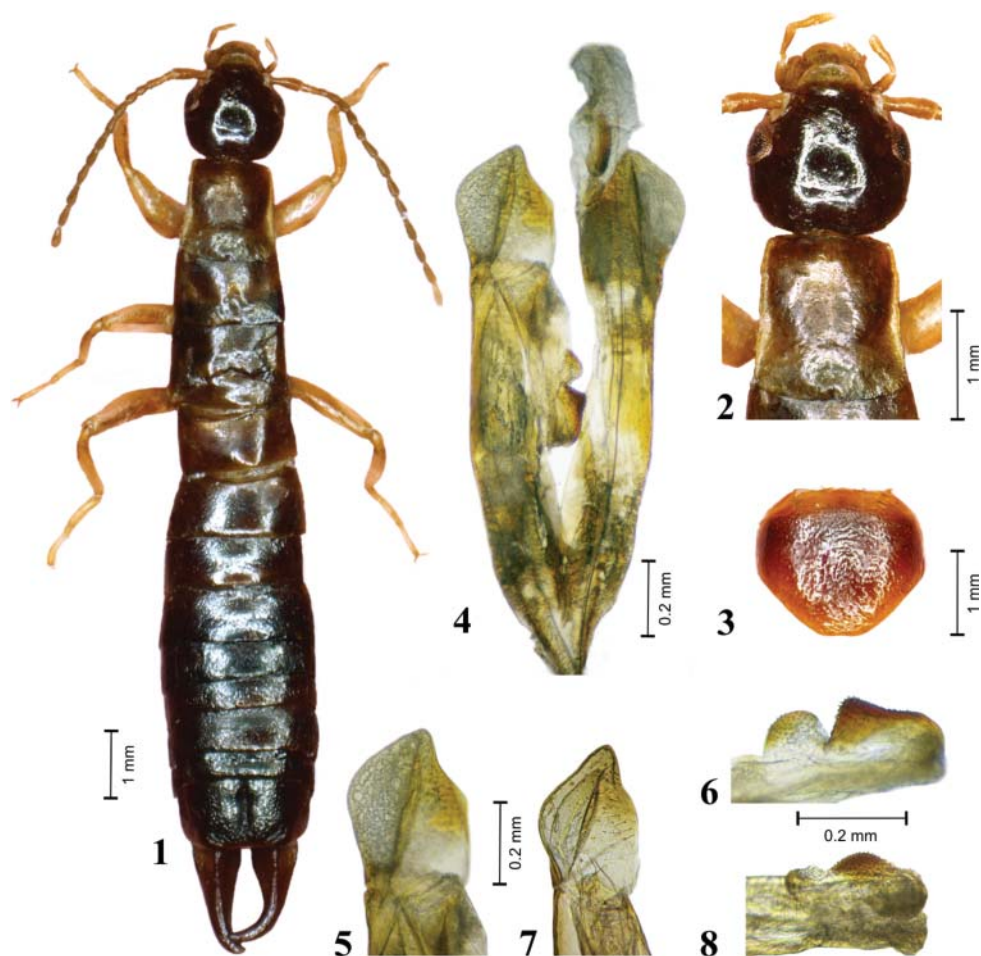
Type locality. South-west Iran, Khuzestan Province, 40 km N Ahwaz, 70 m a.s.l., 31°41'N, 48°33'E (location according to HOBERLANDT 1983).

Material examined. HOLOTYPE: ♂, 'SW Iran / 40 km N Ahwaz / 15.-16.4.1977 // Loc. no. 291 / Exped. Nat. Mus. / Praha' (NMPC). The specimen is provided with additional printed red label: 'HOLOTYPUS / Euborellia / angustata sp. n. / det. P. Kočárek 2011'.

Description. Body dark brown; head entirely black, antennae yellowish brown; pronotum brown with paler sides; legs yellowish brown; abdominal tergites dark brown; forceps reddish brown. Cuticle punctured, shiny; tegmina and wings entirely absent. Length without forceps 11.8 mm, length of forceps 1.6 mm.

Head (Figs. 1, 2) globose, as wide as long, postfrontal and coronal sutures distinct. Eyes small, 0.5 times as long as the length of head behind eyes. Antennae of holotype male with 15 antennomeres (incomplete), conical; antennomere 1 long, narrowed basally, widened terminally, as long as the length of antennomeres 2, 3, and 4 together; antennomere 2 transverse, only slightly longer than wide; antennomere 3 longer than antennomere 4.

Pronotum (Figs. 1, 2) longer than wide, widened posteriorly. Anterior margin nearly straight, posterior margin broadly rounded. Pronotum coriaceous and smooth, median suture distinct. Tegmina and wings entirely absent. Legs entirely yellow, without darker bands.



Figs. 1–8. 1–6 – *Euborellia angustata* sp. nov., holotype (male): 1 – habitus; 2 – head and pronotum; 3 – penultimate sternite, ventral view; 4 – genitalia; 5 – left paramere; 6 – denticulated pads of left distal lobe. 7–8 – *Euborellia compressa* (Borelli, 1907), holotype (male): 7 – left paramere; 8 – denticulated pads of left distal lobe.

Abdomen (Figs. 1, 3, 4) densely punctured, tergites with exception of the ultimate one convex, somewhat widened posteriorly, lateral glandular folds invisible. Basal two tergites almost smooth, the other tergites coarsely coriaceous, and with scattered small punctures, tergites 7–9 rugoso-striate at sides and each with a low blunt rugoso-striate lateral longitudinal ridge. Ultimate tergite transverse, slightly depressed medially with visible median longitudinal furrow, lateral longitudinal ridge rugoso-striate basally, hind margin straight with protuberance at each base of forceps branch. Penultimate sternite broadly rounded, sides in proximal third parallel-sided, apex slightly truncate (Fig. 4). Pygidium flat. Forceps trigonal in basal half and dorsoventrally flattened, branches asymmetrical, inner margin serrated, each branch of forceps short, left branch weakly curved, right branch more strongly curved.

Genitalia (Fig. 5, 6, 7) typical for *Euborellia* Burr, 1910, with parameres short, slightly longer than broad (4 : 3), narrowed apically, tip acuminate; end of longer distal lobe quadratic, dark brown, with strongly sclerotized denticulated pad; lateral denticulated pad rounded.

Differential diagnosis. *Euborellia angustata* sp. nov. is an entirely apterous species without vestiges of tegmina or wings and differs from all other apterous species of *Euborellia* by the combination of the following characters: narrow pronotum, longer than wide (Fig. 2); yellow, not striated legs (Fig. 1); and characteristic male genitalia with specific distal lobe (Figs. 5, 6, 7). The species comes close to *E. compressa* (Borelli, 1907), but differs in the length and shape of pronotum (which in *E. angustata* sp. nov. is remarkably longer than wide and anteriorly narrower than the head) and the penultimate sternite (which is narrowed posteriorly with hind margin subtruncate in *E. angustata* sp. nov. compared to broadly rounded posteriorly in *E. compressa*). Remarkable differences between *E. angustata* sp. nov. and related species concern its male genitalia (Figs. 7, 8) and specifically the shape of the lateral denticulated pads of the longer distal lobe (Fig. 8).

Etymology. The Latin adjective *angustus*, *-a*, *-um*, meaning narrow, is given the new species in reference to its narrow body and narrow pronotum, which are the most remarkable features of the species.

Bionomics. Unknown. Collected from the vegetation on limits of field and irrigation channels with *Salix triandra* and *Populus euphratica* (HÖBERLANDT 1983).

Distribution. South-western Iran, Khuzestan province.

Key to the species of *Euborellia* of the Middle East

Species of the genus *Euborellia* occurring in the Middle East geographic region (Afghanistan, Bahrain, Iran, Iraq, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen) can be separated by the following key:

- 1 (2) Tegminae and wings fully developed. *E. femoralis* (Dohrn, 1863) (Iran, Iraq)
- 2 (1) Tegminae short, reduced or absent; wings rudimentary, concealed, or absent. 5
- 3 (6) Tegminae present, even though rudimentary. 4
- 4 (5) Eyes large, as long as antennomere 1; antennomere 1 shorter than distance between antennal bases; male forceps usually with tooth on dorsal surface basally.
..... *E. moesta* Gén , 1839 (Iran)
- 5 (4) Eyes small, diameter lesser than antennomere 1; antennomere 1 as long as or longer than distance between antennal bases; male forceps without tooth on dorsal surface basally. *E. sakaii* Steinmann, 1978 (Afghanistan)
- 6 (3) Tegminae completely absent. 7
- 7 (8) Legs yellow, femora with conspicuous dark or black rings; pronotum wider than long. *E. annulipes* (Lucas, 1847) (Iran, Qatar, Saudi Arabia, Syria)
- 8 (7) Legs uniformly yellow, pronotum longer than wide. *E. angustata* sp. nov. (Iran)

New faunistic records of Dermaptera from Iran

Labidura riparia (Pallas, 1773)

Material examined. EAST AZERBAIDJAN: 17 km NW Mianeh (Loc. no. 119), 37°28' N 47°36' E, 4.iii.1973, 1 ♀; Sufian, 30 km W Tabriz (Loc. no. 27), 38°17' N 45°59' E, 20.–21.vi.1973, 1 ♀; Ghushchi Lake Razaiyeh (NW) (Loc. no. 99), 37°59' N 45°03' E, 1400 m, 19.viii.1970, 1 ♂ 1 ♀. FARS: Bishapur, Tangé Chogan-e Olia (Loc. no. 234), 29°47' N 51°38' E, 1050–1200 m, 10.–11.vi.1973, 1 ♂ 1 ♀; 30 km E Kazerun (Loc. no. 229), 29°33' N 51°54' E, 1300 m, 8.–10.vi.1973, 1 ♂; Mian Jangal (Loc. no. 223), 29°09' N 53°42' E, 30.v.–5.vi.1973, 1 ♀; Masíri (Loc. no. 235), 30°16' N 51°31' E, 11.–12.vi.1973, 1 ♂ 1 ♀; Gardeneh-e Besan, 15 km NW Furk (Loc. no. 218), 28°27' N 55°06' E, 1000–1400 m, 28.–29.v.1973, 1 ♂. HORMOZGAN: 24 km SSW, Hadjiabad (Loc. no. 194), 28°08' N 55°52' E, 9.–10.v.1973, 2 ♀♀; 7 km W Kahkom (Loc. no. 215), 28°12' N 55°46' E, 27.–28.v.1973, 1 ♀; Shahvar, 12 km NW Minab (Loc. no. 202), 27°14' N 57°01' E, 18.–19.v.1973, 1 ♂ 1 ♀; Fariab, Rud-e Rudan river (Loc. no. 201), 27°28' N 57°07' E, 350 m, 17.–18.v.1973, 1 ♀; Hassan Langi, 62 km E Bandar Abbas (Loc. no. 200), 27°22' N 56°52' E, 16.–17.v.1973, 1 ♂ 1 ♀. KERMAN: Mohammadabad, 35 km NNW Sabzevaran (Loc. no. 187), 1600 m, 28°57' N 57°55' E, 3.–5.v.1973, 1 ♀♀; Dowlatabat, 85 km E Hajiabad (Loc. no. 192), 28°30' N 57°00' E, 8.–9.v.1973, 17 ♂♂ 13 ♀♀; Khushengan, 66 km N Bandar Abbas (Loc. no. 196), 28°44' N 57°28' E, 10.v.1973, 1 ♀; 33 km W Sabzevaran (Loc. no. 189), 1100 m, 27°38' N 56°14' E, 6.–7.v.1973, 1 ♀; Máhán (Loc. no. 133), 30°05' N 57°18' E, 1700 m, 23.–24.iii.1973, 1 ♂ 3 ♀♀ 2 n. KHORASAN: Shurlaq, river valley, 36°18.8' N 60°38.0' E, 570 m, 18.–19.v.2006, 1 ♀, J. Hájek & P. Chvojka lgt.; Bandare Shah, 37°17' N 56°07' E, 1.viii.1970, 2 ♂♂; Wildlife Park, Vicinity of Dasht (Loc. no. 77), 37°17' N 56°07' E, 650 m, 27.–30.vii.1970, 1 ♀. SISTAN & BALUCHESTAN: Khásh (Loc. no. 138), 28°14' N 61°14' E, 28.iii.1973, 5 ♂♂ 7 ♀♀; Khásh (Loc. no. 138), 28°14' N 61°14' E, 15.–16.iv.1973, 5 ♂♂ 7 ♀♀; Bazman Mts., 18 km N village Bazman (Loc. no. 162), 27°49' N 60°12' E, 1200–1300 m, 13.–14.iv.1973, 1 ♂♂.

Published records from Iran. BURR (1912), BUXTON (1921), ČEJCHAN & MAŘAN (1974), MODARRES AWAL (1997), KOČÁREK et al. (2007).

World distribution and distribution in neighbouring countries. Cosmopolitan (STEINMANN 1989a,b); Turkey (WERNER 1901; BURR 1952a,b; WEIDNER 1958; MAŘAN 1977; ALBOUY & CAUSSANEL 1990; ÖNDER et al. 1999; HAAS & HENDERICKX 2002; ANLAŞ & KOČÁREK, in press), Turkmenistan (REDTENBACHER 1889), Pakistan (STEINMANN 1975, ALBOUY & CAUSSANEL 1990), Afghanistan (HINCKS 1961, BEY-BIENKO 1967, STEINMANN 1975), Iraq (WEBER 1954).

Forcipula quadrispinosa (Dohrn, 1863)

Material examined. SISTAN & BALUCHESTAN: 13 km SSE Nikshahr (riv.) (Loc. no. 152), 26°08' N 60°11' E, 8.–9.vi.1973, 1 ♀.

Published records from Iran. New record.

World distribution and distribution in neighbouring countries. India, Bhutan, Nepal, China, Myanmar, Bangladesh, Thailand, Vietnam, Cambodia, Laos, Philippines, Indonesia, Reunion and Mauritius (STEINMANN 1989a,b; SRIVASTAVA 2003a).

Anechura bipunctata (Fabricius, 1781)

Material examined. EAST AZERBAIDJAN: 20 km SE Marand (Loc. no. 266), 38°20' N 45°53' E, 5.–6.vii.1973, 3 ♀♀, 2 n. GILAN: Kuh-e Almas Mts., 20 km NNE Khalkhal (Loc. no. 391), 37°45' N 48°38' E, 2160 m, 29.vi.–1.vii.1977, 1 ♂ 1 ♀. TEHRAN: Kandavan – pass, S slope (Loc. no. 395), 36°10' N 51°15' E, 2780 m, 4.–9.vii.1977, 1 ♂; Kuhheye Tochal (Loc. no. 262), 35°53' N 51°25' E, 3500–3950 m, 30.vi.1973, 1 ♂.

Published records from Iran. BURR (1911, 1912), BEY-BIENKO (1936), ČEJCHAN & MAŘAN (1974), HARZ & KALTENBACH (1976), ALBOUY & CAUSSANEL (1990), MODARRES AWAL (1997), CAMPOBASSO (1999), KOČÁREK (2007).

World distribution and distribution in neighbouring countries. Europe, West and Central Asia (STEINMANN 1989a, 1993); Armenia (ALBOUY & CAUSSANEL 1990), Turkey (WERNER 1901; BURR 1912, 1952b; MAŘAN 1957; STEINMANN 1983; ALBOUY & CAUSSANEL 1990; HERERA MESA 1999; ÖNDER et al. 1999; HAAS & HENDERICKX 2002; ANLAŞ & KOČÁREK, in press), Afghanistan (BEY-BIENKO 1967, STEINMANN 1975, ALBOUY & CAUSSANEL 1990), Turkmenistan (REDTENBACHER 1889, ALBOUY & CAUSSANEL 1990).

Anechura zubovskii Semenov, 1901

Material examined. KHORASAN: 7 km E Bazangan (riv.), 36°19.6' N 60°31.3' E, 740 m, 17.–18.v.2006, 1 ♂, J. Hájek & P. Chvojka lgt.; 15 km E Eshq Abad, 37°48.2' N 56°55.5' E, 800 m, 25.–26.v.2006, 1 ♀, J. Hájek & P. Chvojka lgt.; Kuh-e Hezar Masjed, 25 km SW Kalat-e Nadeii (Loc. no. 363), 1600 m, 11.–12.vi.1977, 1 ♂.

Published records from Iran. SAKENIN et al. (2010).

World distribution and distribution in neighbouring countries. China, India, Tajikistan, Turkey, Iran (STEINMANN 1990; SEMENOV 1901; ANLAŞ & KOČÁREK, in press).

Forficula auricularia Linnaeus, 1758

Material examined. EAST AZERBAIDJAN: 30 km NW Mianeh (Loc. no. 265), 37°29' N 47°24' E, 5.vii.1973, 2 ♂♂. GOLESTAN: Korud Abad, stream valley, 36°53.1' N 54°53.2' E, 230 m, 28.–29.v.2006, 1 ♂, J. Hájek & P. Chvojka lgt. KOHGILUYEH & BOYER AHMAD: Sisakht, Zagros (Loc. no. 240), 30°47' N 51°33' E, 2408 m, 13.–15.vi.1973, 2 ♂♂ 2 ♀♀.

Published records from Iran. BUXTON (1921), BEY-BIENKO (1936), ČEJCHAN & MAŘAN (1974), ALBOUY & CAUSSANEL (1990), MODARRES AWAL (1997), KOČÁREK et al. (2007), SAKENIN et al. (2010).

World distribution and distribution in neighbouring countries. Cosmopolitan (STEINMANN 1989a); Armenia (ALBOUY & CAUSSANEL 1990), Turkey (WERNER 1901; BURR 1912, 1947, 1952a,b; MAŘAN 1957; ALBOUY & CAUSSANEL 1990; ÖNDER et al. 1999; HAAS & HENDERICKX 2002; ANLAŞ & KOČÁREK, in press), and Turkmenistan (ALBOUY & CAUSSANEL 1990).

Forficula lucasi Dohrn, 1865

Material examined. HORMOZGAN: Konardan (Loc. no. 309), 36 km E Gav Bandi, 27°09' N 53°20' E, 210 m, 23.–24.iv.1977, 1 ♀. SISTAN & BALUCHESTAN: 40 km SW Záboli (Loc. no. 143), 26°53' N 61°29' E, 31.iii.1973, 1 ♀.

Published records from Iran. BURR (1911), BEY-BIENKO (1936), ČEJCHAN & MAŘAN (1974), MODARRES AWAL (1997), MOFIDI-NEYESTANAK (2000), KOČÁREK et al. (2007).

World distribution and distribution in neighbouring countries. East Africa and West, Central and East Asia eastwards to Vietnam (STEINMANN 1989a, 1993); TURKEY (STEINMANN 1989a; HERERA MESA 1999; HAAS & HENDERICKX 2002; ANLAŞ & KOČÁREK, in press).

Forficula lurida Fisher, 1853

Material examined. FARS: 48 km N Masíri (Loc. no. 238), 30°32' N 51°31' E, 2230 m, 12.vi.1973, 1 ♂ 2 ♀♀. LORESTAN: Pol-e Tang, 60 km NW Andimeshk (Loc. no. 284), 32°51' N 47°56' E, 490 m, 10.–11.iv.1977, 1 ♀.

Published records from Iran. BORMANS & KRAUSS (1900), BEY-BIENKO (1936), ČEJCHAN & MAŘAN (1974), HARZ & KALTENBACH (1976), STEINMANN (1989a, 1993), MODARRÉS AWAL (1997), HERERA MESA (1999), KOČÁREK et al. (2007), SAKENIN et al. (2010).

World distribution and distribution in neighbouring countries. South-eastern Europe, Asian Turkey, Syria, Israel, Iran, Iraq (STEINMANN 1989a, 1993); Turkey (Werner 1901; BURR 1912, 1947, 1952a,b; MAŘAN 1957; ÖNDER et al. 1999; STEINMANN 1983, 1989a; ÖNDER et al. 1999; HERERA MESA 1999; HAAS & HENDERICKX 2002; ANLAŞ & KOČÁREK, in press), Iraq (STEINMANN 1983, 1989a; HERERA MESA 1999).

Check-list of Iranian Dermaptera

KOČÁREK et al. (2007) reported 12 species of Dermaptera from Iran. SAKENIN et al. (2010) recently published occurrence of 9 more species. Including the one new species described here, *Euborellia angustata* sp. nov., and one species recorded for the first time from Iran, *Forcipula quadrispinosa*, the total number of species currently known from Iran is 23. The new species for the fauna are listed in bold. Occurrence of species labelled by asterisk is uncertain and needs to be confirmed (for details see Discussion).

Anisolabididae

- Anisolabis maritima* (Bonelli, 1832)
- Euborellia annulipes* (Lucas, 1847)
- Euborellia femoralis* (Dohrn, 1863)
- Euborellia moesta* (Géné, 1839)
- Euborellia angustata* sp. nov.**

Labiduridae

- Labidura riparia* (Pallas, 1773)
- Nala lividipes* (Dufour, 1829)
- Forcipula quadrispinosa*** (Dohrn, 1863)

Spongiphoridae

- **Isolabella graeca* Verhoeff, 1901
- **Isolaboides kosswigi* (Burr, 1947)

Forficulidae

- Anechura bipunctata* (Fabricius, 1781)
- Anechura globalis* Steinmann, 1990
- Anechura zubovskii* Semenov, 1901
- **Guanchia hincksi* (Burr, 1947)
- Guanchia brignolii* Vigna Taglianti, 1974
- Forficula aetolica* Brunner, 1882
- Forficula auricularia* Linnaeus, 1758
- Forficula decipiens* Géné, 1832
- Forficula lucasi* Dohrn, 1865
- Forficula lurida* Fisher, 1853
- Forficula senegalensis* Serville, 1839
- Forficula smyrnensis* Serville, 1839
- Forficula tomis* (Kolenati, 1846)

Discussion

Iranian species of Dermaptera belong to the Labiduridae, Anisolabididae, Forficulidae, and Spongiphoridae, which are typical families of the warmer regions of Palaearctic. The Iranian Dermaptera fauna consists of Palaearctic and cosmopolitan families (KOČÁREK et al. 2007), and taxa with a centre of distribution in the tropics and exclusively tropical taxa of the Dermaptera (Pygidicranidae, Diplatyidae, Karschiellidae, Apachyidae, Chelisochidae) are completely absent. The only Oriental faunistic elements are *Euborellia femoralis* and the newly found *Forcipula quadrispinosa*, two species that probably spread from India through Pakistan and into Iran. *Anechura zubovskii* is distributed in montane regions of China, India,

Tajikistan, and Turkey, and its distribution in Iran also includes montane regions of Khorasan province; *Anechura globalis* seems to be endemic to Iran (STEINMANN 1990) but has not been reported since its initial collection.

Current knowledge on the distribution and faunistics of the Dermaptera in Iran is still insufficient, and occurrence of species that are known to be found in neighbouring countries can be suspected (STEINMANN 1986, 1989a, 1989b, 1990a, 1993; SRIVASTAVA 2003a). In particular, the occurrence of the following species in Iran seems likely or at least possible: *Oreasiolabia fedtschenkoi* (Saussure, 1874), which has been detected in Pakistan, Afghanistan, and Turkmenistan, and *Labia minor* (Linnaeus, 1758), species widely distributed in neighbouring countries. Other species of Dermaptera that are also likely to occur in Iran include those species that are endemic to countries to the east of Iran (Pakistan, Afghanistan, and Turkmenistan); these include *Euborellia rajasthanensis* Srivastava, 1977, *E. sakaii* Steinmann, 1978, *E. compressa* (Borelli, 1907), *Isolaboides burri* (Borelli, 1909), *Foramenolabis afghana* Steinmann, 1981, *Parisolabis elegans* (Hebart, 1917), *Nala basalis* Bey-Bienko, 1970, *F. trispinosa* (Dohrn, 1863), *Forficula abbottabadiensis* Bharadwaj & Kapoor, 1967, and *F. sagitta* Semenov, 1936. Many of these species are known only from a few specimens or the type series, and their biology and ecology are unknown; we therefore cannot evaluate the possibility of their occurrence in Iran (KOČÁREK et al. 2007).

Occurrence of some species recently published by SAKENIN et al. (2010) is not well supported and need revision. *Isolabella graeca*, *Isolaboides kosswigi* and *Guanchia hincksi* are species known only from eastern Mediterranean (Greece, Cyprus, Turkey: West, South and Northwest Anatolia – ANLAS & KOČÁREK, in press), and the occurrence in north-western parts of Iran published by SAKENIN et al. (2010) must be confirmed by further records. *Forficula senegalensis* is distributed in Africa (STEINMANN 1993) and the occurrence in Iran is very probably alien. SAKENIN et al. (2010) reported *Guanchia pubescens* (Géné, 1837) from Iran. According to the current knowledge (KALTENBACH 1976, ALBOUY & CAUSSANEL 1990, KOČÁREK 2007), the distribution of *G. pubescens* is restricted to the western part of Mediterranean region (Morocco, Algeria, Tunisia, Portugal, Spain, France, Italy), and the species distributed in the eastern Mediterranean (Lebanon, Syria, Israel, Turkey) is a similar species, *G. brignolii* Vigna Taglianti, 1974. So, the occurrence of *G. pubescens* in Iran is very improbable and the report of SAKENIN et al. (2010) surely belongs to morphologically very similar *G. brignolii* (for detail diagnosis see KOČÁREK (2007)).

Euborellia has a cosmopolitan distribution and comprises species that are difficult to distinguish. The number of currently known *Euborellia* species in the world is 50; about 10 of these species are Palaearctic, and only 4 to 5 species occur in the Middle East (STEINMANN 1989b; ANISYUTKIN 1998a,b; SRIVASTAVA 2003a,b; KOČÁREK 2011). The distribution of the newly described species *E. angustata* sp. nov. is unknown, but given that it was found in the lowlands of Khuzestan, there is no geomorphological reason why its distribution should be restricted to Iran, and it probably occurs at least in the adjacent parts of Iraq and Kuwait. *Euborellia angustata* sp. nov. is similar to *E. compressa* (Borelli, 1907), which is distributed in Central and Eastern Africa (BRINDLE 1978). SRIVASTAVA (2003a) mentioned the occurrence of *E. compressa* in India and Pakistan, but according to drawings of body and genitalia in that report, the specimens seem to be rather *E. angustata* sp. nov. or an undescribed species. Materials from these countries should be re-examined.

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