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Notes on Palaearctic species of the family Leucospidae (Hymenoptera, Chalcidoidea), with new records from North Africa and Middle East

M. MADL & M. SCHWARZ

A b s t r a c t : New records of the family Leucospidae (*Leucospis biguetina* JURINE, 1807, *L. brevicauda* FABRICIUS, 1804, *L. dorsigera* FABRICIUS, 1775, *L. elegans* KLUG, 1834, *L. gigas* FABRICIUS, 1793 and *L. intermedia* ILLIGER, 1807) are provided from North Africa and Middle East. The publication date of KLUG's paper (Die europäischen Arten der Insekten-Gattung: *Leucospis*) is 1812.

K e y w o r d s : Leucospidae, *Leucospis*, new records, catalogue, North Africa, Middle East, Afghanistan, Pakistan.

Introduction

In the Palaearctic region the genus *Leucospis* FABRICIUS, 1795 contains 14 species (BOUČEK 1974). The taxonomy of the species is well known, but there are still gaps in the knowledge of the biology and distribution.

In this paper the species occurring in North Africa, Middle East countries (excluding Turkey), Afghanistan and Pakistan are treated and only papers dealing with this area are listed. Synonyms or misidentifications are marked with an asterisk (*). The general distribution data are based on an unpublished catalogue compiled by M. Madl.

In the last years we have identified Palaearctic material of the Biologiezentrum des Oberösterreichischen Landesmuseums at Linz (Austria) and the Naturhistorisches Museum Wien (Austria). New records of *Leucospis biguetina* JURINE, 1807, *L. brevicauda* FABRICIUS, 1804, *L. dorsigera* FABRICIUS, 1775, *L. gigas* FABRICIUS, 1793 and *L. intermedia* ILLIGER, 1807 from the southern Palaearctic region (North Africa and Middle East) are dealt with. The material listed below is deposited in the Biologiezentrum des Oberösterreichischen Landesmuseums at Linz unless stated otherwise. The material of the Naturhistorisches Museum Wien is indicated NHMW.

Prof. R. Abraham (Hamburg, Germany) kindly sent us the unpublished file with the data of the *Leucospis* species housed in the Zoologisches Museum Hamburg (ABRAHAM & PETERS 2011: 267). The exact data of *Leucospis gigas* from Algeria and Israel and *L. dorsigera* from Israel are also listed.

On the publication date of F. KLUG: Die europäischen Arten der Insekten-Gattung: *Leucospis*

When we read the statement by BOUČEK (1974: 150), that *Leucospis varia* KLUG and *L. grandis* KLUG were figured as early as 1814 in AHRENS, we could not believe, that the paper of KLUG (Die europäischen Arten der Insekten-Gattung: *Leucospis*) had been published in the same year. After a long search we found in Germar's Magazin der Entomologie 1 (1) (p. 60) the note, that volume 6 (1) of the journal "Magazin der Gesellschaft Naturforschender Freunde zu Berlin für die Neuesten Entdeckungen in der Gesammten Naturkunde" had been published in 1812. Consequently the publication date for the following *Leucospis* species described by KLUG is 1812: *aculeata*, *bifasciata*, *gibba*, *grandis* and *varia*.

Abbreviations

biol.	biology
cat.	catalogue
design.	designation
distr.	distribution
ed. (eds)	editor (editors)
fig. (figs)	figure (figures)
NHMW	Naturhistorisches Museum Wien
pl. (pls)	plate (plates)
syn.	synonym
tab.	table
tax.	taxonomy

Catalogue and material

Leucospis bifasciata KLUG, 1812

Leucospis bifasciata KLUG, 1814: MASI 1949: 91 (tax., Israel).

Leucospis bifasciata KLUG, 1814: BOUČEK 1959: 436 (key), 439 (figs 13-21), 440 (tax., Israel (locality see fig. 17)).

Leucospis bifasciata KLUG, 1814: BOUČEK 1974: 102 (key), 115 (fig. 175), 140 (tax.), 142 (tax.), 146 (tax., biol., Israel), 158 (key).

Leucospis bifasciata KLUG, 1814: BAUR & AMIET 2000: 367 (key, figs 5a', b'), 381 (tax., fig. 12: tax., biol., Israel, Jordan, Syria), 382 (fig. 12: tax.), 383 (fig. 13: tax.), 385 (fig. 14: tax.).

Leucospis bifasciata KLUG, 1814: LOTFALIZADEH & FAKHRZADEH 2012: 51 (tax., Iran), 52 (figs 1, 5: map).

**Leucospis gibba* KLUG, 1814: BOUČEK 1956: 251 (tax., Israel).

D i s t r i b u t i o n : Albania, Azerbaijan, Bosnia-Hercegovina, Bulgaria, Croatia (mainland, Hvar, Rab), Cyprus, France (mainland), Greece (mainland, Crete, Rhodes), Iran, Israel, Italy (mainland, Sardinia, Sicily), Jordan, Kazakhstan, Montenegro, Russia, Spain (mainland), Syria, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

The material housed in the Biologiezentrum was published by BAUR & AMIET (2000). The doubtful record Sarepta (today Sarafand) from Lebanon in BAUR & AMIET (2000:

381) is a geographical error. In fact, it is the former German village Sarepta (today part of Wolgograd) in Russia.

***Leucospis biguetina* JURINE, 1807**

Leucospis biguetina JURINE, 1807: BOUČEK 1956: 251 (tax., Algeria without exact locality, Israel, Morocco without exact locality).

Leucospis biguetina JURINE, 1807: BOUČEK 1959: 436 (key), 437 (fig. 8), 441 (tax., Israel without exact locality).

Leucospis biguetina JURINE, 1807: NIKOLS'KAYA 1960: 196 (key), 198 (tax., descr. ♂ ♀, Iran), 199 (figs 125a-c).

Leucospis biguetina JURINE, 1807: BOUČEK 1974: 103 (key), 115 (figs 171, 172), 140 (tax.), 142 (tax.), 147 (tax., type design., Iraq without exact locality, Iran, North Africa without exact locality, Syria without exact locality), 158 (key).

Leucospis biguetina JURINE, 1807: LOTFALIZADEH & FAKHRZADEH 2012: 52 (tax., cat. Iran, fig. 5: map).

M a t e r i a l e x a m i n e d : Jordan: N Shuna, 1♀, 20-22.4.1996, leg. M. Halada – Iran: Province Azerbaijan-e-Shargi, Sis, 10 km E Shabestar, 1540 m (38°26'N/45°86'E), 1♀, 19.6.2010, leg. Mi. Halada.

D i s t r i b u t i o n : Algeria, Azerbaidjan, Austria, Bosnia-Hercegovina, Croatia (mainland, Krk), Czech Republic, France (mainland, Corsica), Gibraltar, Greece (mainland), Hungary, Iran, Iraq, Israel, Italy (mainland, Sicily), Jordan, Montenegro, Morocco, Russia, Serbia, Slovakia, Slovenia, Spain (mainland), Switzerland, Syria, Tajikistan, Turkey, Turkmenistan.

First record for the fauna of Jordan.

***Leucospis brevicauda* FABRICIUS, 1804**

Leucospis brevicauda n.sp.: FABRICIUS, 1804: 169 (descr. ♀, Algeria ("Barbaria")).

Leucospis brevicauda FABRICIUS, 1804: SPINOLA 1811: 147 (cat.).

Leucospis brevicauda FABRICIUS, 1804: LUCAS 1849: 317 (tax., descr. ♂, Algeria), pl. 18 (figs 3, 3a).

Leucospis brevicauda FABRICIUS, 1804: SCHLETTERER 1890: 157 (tax.), 159 (tax.), 164 (key), 178 (tax. descr. ♀, Algeria).

Leucospis brevicauda FABRICIUS, 1804: DE DALLA TORRE 1898: 407 (cat.).

Leucospis brevicauda FABRICIUS, 1804: SCHMIEDEKNECHT 1909: 15 (cat.).

Leucospis brevicauda FABRICIUS, 1804: BERLAND 1934b: 67 (key ♀, footnote 1: tax.), 68 (fig. 6), 69 (North Africa without exact locality).

Leucospis brevicauda FABRICIUS, 1804: MASI 1935: 35 (tax., descr. ♂, Algeria, Morocco, Tunisia).

Leucospis brevicauda FABRICIUS, 1804: BOUČEK 1974: 102 (key), 115 (figs 169, 170), 140 (tax.), 141 (tax., type design., Algeria, Morocco, Tunisia), 160 (key).

Leucospis brevicauda FABRICIUS, 1804: MADL 1990: 82 (tax., Algeria, Tunisia).

Leucospis brevicauda FABRICIUS, 1804: BAUR & AMIET 2000: 364 (key, figs 2a, b), 382 (fig. 12: tax.), 383 (fig. 13: tax.), 384 (tax., Morocco, Algeria, Tunisia), 385 (fig. 14: tax.).

**Leucospis dispar* n.sp. (*minor*): FABRICIUS 1804: 170 (descr. ♂, Algeria).

Leucospis dispar FABRICIUS, 1804 (*minor*): SCHLETTERER 1890: 178 (syn.).

Leucospis dispar FABRICIUS, 1804 (*minor*): BOUČEK 1974: 144 (tax., type design.).

**Leucospis Fabricii* n.sp.: WESTWOOD, 1839: 257 (descr. ♂, Algeria ("Barbaria")).

Leucospis fabricii WESTWOOD, 1839: WALKER 1860: 16 (cat.).

Leucospis fabrici (!) WESTWOOD, 1839: SCHLETTERER 1890: 178 (syn.).

**Leucospis Grohmanni* n.sp.: SPINOLA 1838: 444 (descr. ♂ ♀, Egypt).

Leucospis grohmanni SPINOLA, 1838: WALKER 1860: 16 (cat.).

Leucospis grohmanni SPINOLA, 1838: SCHLETERER 1890: 178 (syn.).

Leucospis grohmanni SPINOLA, 1838: BOUČEK 1974: 144 (tax., type design.).

M a t e r i a l e x a m i n e d : Morocco: 70 km N Agadir, Tamri, 1♂, 8. 5. 1995, leg. Mi. Halada – Oued Tiznit, Massa, 3♂♂, 8. 5. 1995, leg. M. Snižek – Taroudant, 1♂, 22.4.1990, leg. M. Halada.

D i s t r i b u t i o n : Algeria, Egypt, France (mainland), Italy (mainland, Sardinia, Sicily), Malta, Morocco, Portugal, Spain (mainland, Baleares), Tunisia, Turkey.

***Leucospis dorsigera* FABRICIUS, 1775**

Leucospis dorsigera FABRICIUS, 1775: WESTWOOD 1839: 259 (tax., descr. ♂ ♀, Algeria).

Leucospis dorsigera FABRICIUS, 1775: SCHLETERER 1890: 154 (tax.), 156 (tax.), 157 (tax.), 159 (tax.), 165 (key ♀), 169 (key ♂), 185 (tax., descr. ♂ ♀, Algeria, Egypt, Morocco, Syria), pls 5 (fig. 14), 6 (fig. 28).

Leucospis dorsigera FABRICIUS, 1775: WELD 1922: 11 (key), 32 (Morocco), pl. 3 (fig. 16).

Leucospis dorsigera FABRICIUS, 1775: MAIDL 1933: 128 (Morocco).

Leucospis dorsigera FABRICIUS, 1775: MASI 1934: 6 (tax., Syria).

Leucospis dorsigera FABRICIUS, 1775: MASI 1949: 91 (Israel).

Leucospis dorsigera FABRICIUS, 1775: BOUČEK 1956: 250 (tax., Israel).

Leucospis dorsigera FABRICIUS, 1775: BOUČEK 1959: 435 (fig. 1), 436 (key), 438 (tax., Afghanistan without exact locality, Iran without exact locality, Israel without exact locality).

Leucospis dorsigera FABRICIUS, 1775: STEFFAN 1962: 20 (biol., Israel).

Leucospis dorsigera FABRICIUS, 1775: HERTING 1973: 15 (Israel, host-parasite cat.). not seen

Leucospis dorsigera FABRICIUS, 1775: BOUČEK 1974: 12 (figs 3, 4), 13 (figs 12-14), 102 (key), 115 (fig. 173, Iran), 140 (tax.), 142 (tax., biol., Afghanistan without exact locality, Algeria, Egypt, Iran without exact locality, Iraq without exact locality, Israel without exact locality, Lebanon, Libya, Morocco without exact locality, Syria, Tunisia), 159 (key).

Leucospis dorsigera FABRICIUS, 1775: MADL 1989: 199 (tax., Egypt without exact locality, Israel without exact locality, Lebanon without exact locality, Morocco).

Leucospis dorsigera FABRICIUS, 1775: MADL 1990: 82 (tax., Morocco).

Leucospis dorsigera FABRICIUS, 1775: HESAMI, AKRAMI & BAUR 2005: 34 (biol., Iran), 43 (host-parasite cat.), 70 (cat. biol.).

Leucospis dorsigera FABRICIUS, 1775: LOTFALIZADEH & FAKHRZADEH 2012: 52 (figs 2, 5: map), 53 (tax., biol., Iran, Iraq).

**Leucospis Algirica* n.sp.: WALKER 1860: 17 (descr. ♀, Algeria).

Leucospis algirica WALKER, 1860: SCHLETERER 1890: 185 (syn.).

Leucospis algirica WALKER, 1860: BOUČEK 1974: 142 (tax., type design.).

**Leucospis dispar* n.sp.: FABRICIUS 1804: 169 (descr. ♂, Algeria ("Barbaria").

Leucospis dispar FABRICIUS, 1804: SPINOLA 1811: 147 (cat.).

Leucospis dispar FABRICIUS, 1804: KLUG 1812: 69 (syn.).

Leucospis dispar FABRICIUS, 1804: BOUČEK 1974: 142 (tax., type design.).

**Leucospis scutellata* n.sp.: SPINOLA 1838: 441 (descr. ♀, Egypt).

Leucospis scutellata (!) SPINOLA, 1838: SCHLETERER 1890: 185 (syn.).

Leucospis scutellata (!) SPINOLA 1838: CASOLARI & CASOLARI MORENO 1980: 66 (Egypt, cat. Spinola Collection Torino).

Leucospis scutellata (!) SPINOLA 1838: BOUČEK 1974: 143 (tax., type design.).

**Leucospis turkestanica* RADOSZKOWSKI, 1886: NIKOLS'KAYA 1952: 80 (key, tax., Iran without exact locality).

Leucospis turkestanica RADOSZKOWSKI, 1886: NIKOLS'KAYA 1960: 32, 197 (key), 209 (fig. 132), 211 (tax., descr. ♂ ♀, 134a-e, biol., Iran without exact locality).

M a t e r i a l e x a m i n e d : Jordan: N Shuna, 2♂♂, 29.-30.4.1996, leg. Ma. Halada – 16 km WWN of Ailun, 600 m, 1♂, 21.5.2007, leg. Z. Kejval – Syria: 60 km S Damascus, Khabab, 1♀, 14.5.1996, leg. Mi. Halada – near Tartus, 1♀, 25.5.1996, leg. Mi. Halada – 20 km NE Latakia, 1♂, 25.5.1996, leg. Marek Halada – 50 km W Homs, 1♂, 12.5.1996, leg. Mi. Halada – Faouar, UN-Camp, 960 m (35°55'N/33°13'E), 1♂, 2.5.2001, 1♂, 6.5.2001, 1♂, 12.5.2001, 1♂, 2.6.2001, 1♂, 14.7.2001, leg. J. Plass – Iran: Province Azerbaijan-e-Shargi, Sis, 10 km E Shabestar, 1540 m (38°26'N/45°86'E), 2♂♂, 19.6.2010, leg. Mi. Halada – Prov. Kerman, 20 km E Ghobira, 1780 m (30°10'N/56°59'E), 1♂, 5.6.2010, leg. Mi. Halada – Province Kerman, Gebal Barez Mountains, Deh Bakri, 1640 m (29°08'N/57°91'E), 1♂, 3.6.2010, leg. Mi. Halada – Province Kerman, 30 km S Sirjan, 1730 m (29°13'/55°74'E), 2♀♀, 7.6.2010, leg. Mi. Halada.

M a t e r i a l Z o o l o g i c s c h e s M u s e u m H a m b u r g : Israel: Mont Carmel, Hai Bar, 2♂♂, on dead *Prunus*-twigs, 10.7.2000, leg. Török – Nahal Nesher, 2♀♀, on *Foeniculum vulgare* MILLER (Apiaceae), 16.8.2000, leg. Török.

D i s t r i b u t i o n : Afghanistan, Albania, Algeria, Austria, Azerbaijan, Belgium, Bulgaria, Croatia (mainland, Hvar, Krk, Losinj, Mljet, Rab, Susak), Cyprus, Czech Republic, Egypt, France (mainland, Corsica), Georgia, Germany, Greece (mainland, Poros, Rhodes), Hungary, Iran, Iraq, Israel, Italy (mainland, Lampedusa, Sardinia, Sicily), Jordan, Kazakhstan, Lebanon, Luxembourg, Lybia, Macedonia, Malta, Moldova, Montenegro, Morocco, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain (mainland), Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan.

The locality Ksara (Syria) mentioned by BOUČEK (1974: 145) is actually situated in Lebanon. The host record (Coleoptera: Bostrichidae) in STEFFAN (1962: 20) is doubtful.

***Leucospis elegans* KLUG, 1834**

Leucospis elegans n.sp.: KLUG 1834: pl. 37 (fig. 4), (descr. ♀, "Arabia felix").

Leucospis elegans KLUG, 1834: WESTWOOD 1839: 248 (tax., descr. ♀, "Arabia felix").

Leucospis elegans KLUG, 1834: WALKER 1860: 16 (cat.).

Leucospis elegans KLUG, 1834: SCHLETTNERER 1890: 154 (tax.), 155 (tax.), 157 (tax.), 159 (tax.), 217 (tax., descr. ♀, "Arabia felix"), pl. 5 (fig. 17).

Leucospis elegans KLUG, 1834: DE DALLA TORRE 1898: 409 (cat.).

Leucospis elegans KLUG, 1834: SCHMIEDEKNECHT 1909: 15 (cat.).

Leucospis elegans KLUG, 1834: BOUČEK 1959: 436 (key), 437 (figs 2-5), 441 (tax., "Arabia felix").

Leucospis elegans KLUG, 1834: BOUČEK 1974: 103 (key), 105 (figs 130, 131), 107 (figs 132, 133), 114 (tax., descr. ♂, "Arabia felix", Pakistan), 160 (key).

Leucospis elegans KLUG, 1834: BOUČEK & NARENDRAN 1981: 2 (key), 3 (tax.), 5 (tax., cat.), 6 (figs 15, 16).

Leucospis elegans KLUG, 1834: NARENDRAN 1986: 44 (cat.).

Leucospis elegans KLUG, 1834: SCHMID-EGGER 2010: 319 (tax., United Arab Emirates (Abu Dhabi, Dubai, Ras al Khaimah), Oman, Yemen), 320 (pls 1, 2), 324 (key).

M a t e r i a l e x a m i n e d : United Arab Emirates: Dubai, Hatta 1♀, 1.11.1985 leg. I.L. Hamer (NHMW) – Abu Dhabi 1♂, 5.8.1985 leg. I.L. Hamer (NHMW).

D i s t r i b u t i o n : Oman, Pakistan, United Arab Emirates (Abu Dhabi, Dubai, Ras al Khaimah), Yemen, "Arabia felix".

Leucospis elegans is also known from the Ethiopian region (Sudan).

***Leucospis gigas* FABRICIUS, 1793**

Leucospis gigas FABRICIUS, 1793: LUCAS 1849: 317 (Algeria).

- Leucospis gigas* FABRICIUS, 1793: SCHLEITTERER 1890: 154 (tax.), 155 (tax.), 156 (tax.), 157 (tax.), 158 (tax.), 159 (tax.), 167 (key ♀), 169 (key ♂), 203 (tax., descr. ♂ ♀, Iran without exact locality, Syria without exact locality), pls 5 (figs 5, 6, 13), 6 (fig. 20).
- Leucospis gigas* FABRICIUS, 1793: SCHMIEDEKNECHT 1896: 159 (Algeria), 163 (Algeria).
- Leucospis gigas* FABRICIUS, 1793: SCHULZ 1905: 18 (Morocco), 20 (tax., Algeria).
- Leucospis gigas* FABRICIUS, 1793: STRAND 1910: 281 (tax., Algeria).
- Leucospis gigas* FABRICIUS, 1793: BERLAND 1934a: 173 (biol., Algeria, Morocco).
- Leucospis gigas* FABRICIUS, 1793: BERLAND 1934b: 66 (key ♀, fig. 1), 67 (key ♂, footnote 2: distr., tax., biol., Algeria without exact locality), 68 (figs 2-4),
- Leucospis gigas* FABRICIUS, 1793: STECK 1934: 158 (tax., biol., Algeria).
- Leucospis gigas* FABRICIUS, 1793: MASI 1935: 39 (tax., Algeria, Lybia).
- Leucospis gigas* FABRICIUS, 1793: MASI 1949: 91 (tax., descr. ♂, Israel).
- Leucospis gigas* FABRICIUS, 1793: BOUČEK 1956: 251 (tax., Israel).
- Leucospis gigas* FABRICIUS, 1793: BOUČEK 1959: 437 (key, figs 11, 12), 442 (tax., Afghanistan without exact locality, Middle East without exact locality, Near East without exact locality, North Africa without exact locality).
- Leucospis gigas* FABRICIUS, 1793: NIKOLS'KAYA 1960a: 15 (fig. 16), 20 (biol.), 22 (biol.), 26 (biol.), 32, 196 (tax.), 197 (key), 204 (tax., descr. ♂ ♀, biol., Iran without exact locality), 205 (figs 129a-d).
- Leucospis gigas* FABRICIUS, 1793: BYTINSKI-SALZ 1963: 527 (tax., biol., fig. 1: map, Israel), 528 (tab. 1: biol.).
- Leucospis gigas* FABRICIUS, 1793: BOUČEK 1974: 12 (figs 1, 2, 5), 13 (figs 8, 9), 104 (key), 115 (fig. 176), 140 (tax.), 149 (tax., biol., Afghanistan without exact locality, Algeria, Egypt, Israel without exact locality, Iran without exact locality, Israel without exact locality, Lybia, Morocco, Pakistan, Tunisia), 156 (key).
- Leucospis gigas* FABRICIUS, 1793: MADL 1989: 200 (tax., Israel without exact locality, Lebanon without exact locality, Tunisia without exact locality).
- Leucospis gigas* FABRICIUS, 1793: MADL 1990: 83 (tax., Algeria).
- Leucospis gigas* FABRICIUS, 1793: ABRAHAM & PETERS 2011: 267 (without locality (see below)).
- Leucospis gigas* FABRICIUS, 1793: LOTFALIZADEH & FAKHRZADEH 2012: 52 (figs 2, 4, 5: map), 53 (tax., Iran).
- **Leucospis nursei* sp.nov.: CAMERON 1906: 92 (descr. ♂, Pakistan).
- Leucospis nursei* CAMERON, 1906: WELD 1922: 37 (cat.).
- Leucospis nursei* CAMERON, 1906: RAMAKRISHNA AIYAR 1925: 237 (cat. India and Ceylon).
- Leucospis nursei* CAMERON, 1906: MANI 1937: 291 (cat. India), 292 (tax.), 293 (key), 297 (tax., cat.).
- Leucospis nursei* CAMERON, 1906: MANI 1938: 48 (cat. India).
- Leucospis nursei* CAMERON, 1906: BOUČEK 1974: 150 (syn., type design.).
- **Leucaspis* (!) *quetteensis* sp.nov.: CAMERON 1906: 91 (descr. ♂ (not ♀), Pakistan).
- Leucospis quettaensis* CAMERON, 1906: WELD 1922: 37 (cat.).
- Leucospis quettaensis* CAMERON, 1906: RAMAKRISHNA AIYAR 1925: 237 (cat. India and Ceylon).
- Leucospis quettaensis* CAMERON, 1906: MANI 1937: 291 (cat. India), 292 (tax.), 293 (key), 297 (tax., cat.).
- Leucospis quettaensis* CAMERON, 1906: MANI 1938: 48 (cat. India).
- Leucospis quettaensis* CAMERON, 1906: BOUČEK 1974: 149 (syn., type design.).
- **Leucospis gigas* var. *rufonotata* WESTWOOD, 1839: SCHMIEDEKNECHT 1896: 163 (tax., Algeria).
- Leucospis rufonotata* WESTWOOD, 1839: MASI 1935: 39 (tax., Lybia).
- Leucospis rufonotata* WESTWOOD, 1839: MADER 1937: 160 (tax., key, Algeria).
- Leucospis varia* KLUG, 1814: CASOLARI & CASOLARI MORENO 1980: 66 (Algeria, cat. Spinola Collection Torino).
- H o s t : Megachilidae: *Hoplitis pallicornis* (FRIESE, 1895) (see below).

M a t e r i a l e x a m i n e d : Israel: Jericho, 1♂ 1♀, leg. O. Schmiedeknecht (NHMW) – Jordan: N Shuna, 2♀ ♀, 29-30.4.1996, 1♀, 30.4.1996, leg. Ma. Halada – Jordan Valley, Deir Alla, 1♀, 27.4.1996, leg. Mi. Halada – Jarash, near Burma, Al Hun, 4♀ ♀, 15.5.2010, leg. M. Snižek – Lebanon: Bsharri (Becharré), 1900 m, 1♀, 24-30.6.1931, leg. H. Žerny (NHMW) – Iran: Province Kerman, 30 km S Sirjan, 1730 m (29°13'N/55°74'E), 1♀, 7.6.2010, leg. Mi. Halada – Province Kerman, Gebal Barez Mountains, Deh Bakri, 1640 m (29°08'N/57°91'E), 1♂, 2♀ ♀, 3.6.2010, leg. Mi. Halada – Province Kohkiluyeh-Boyer Ahmad, Kuh Gol near Sisakht, 2500 m (30°84'N/51°53'E), 1♀, 9.6.2010, leg. Mi. Halada.

M a t e r i a l Z o o l o g i c h e s M u s e u m H a m b u r g : Algeria: El Mersane, 6♀ ♀, 1931, leg. K. Predota – Hassi Babbah, 1♀, 1930, 1♀, 1931, leg. K. Predota – Israel: Mount Carmel, Nahal Nesher, 1♀, on *Eryngium creticum* LAMARCK 1798 (Apiaceae), 14.6.2000, leg. Török – Wadi Denia, 1♀, collected 12.3.2000, emerged 16.4.2000, ex *Hoplitis pallicornis* (FRIESE 1895) in nest of *Chalicodoma cf. sicula* (ROSSIUS 1792), leg. Török.

D i s t r i b u t i o n : Afghanistan, Albania, Algeria, Armenia, Austria, Bosnia-Hercegovina, China, Croatia (mainland, Brac, Hvar, Krk, Rab, Susak), Egypt, France (mainland, Corsica), Germany, Gibraltar, Greece (mainland, Chios, Corfu, Crete, Kalymnos, Syros), Hungary, Iran, Israel, Italy (mainland, Sardinia, Sicily), Jordan, Kazakhstan, Kyrgyzstan, Lebanon, Libya, Macedonia, Malta, Montenegro, Morocco, Pakistan, Romania, Russia, Slovakia, Slovenia, Spain (mainland), Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan.

First record for the fauna of Jordan.

***Leucospis guzeratensis* WESTWOOD, 1839**

Leucospis guzeratensis WESTWOOD, 1839: BOUČEK 1974: 161 (key), 167 (figs 194, 195), 182 (tax., Pakistan).

Leucospis guzeratensis WESTWOOD, 1839: BOUČEK & NARENDRAJ 1981: 3 (key, tax.), 6 (figs 10-12), 7 (tax., cat.), 13 (cat.).

Distribution: Pakistan.

Known from the Oriental region.

***Leucospis intermedia* ILLIGER, 1807**

Leucospis intermedia ILLIGER, 1807: SPINOLA 1838: 442 (tax., Egypt).

Leucospis intermedia ILLIGER, 1807: SCHLETTTERER 1890: 150 (tax.), 159 (tax), 167 (key ♀), 170 (key ♂), 195 (tax., descr. ♂ ♀, Algeria, Egypt without exact locality), pls 5 (fig. 11), 6 (fig. 29).

Leucospis intermedia ILLIGER, 1807: BERLAND 1934b: 66 (key ♀), 67 (key ♂), 68 (biol., France (mainland), Morocco, Switzerland).

Leucospis intermedia GLL. (!): MASI 1949: 91 (tax., Israel).

Leucospis intermedia ILLIGER, 1807: NIKOLS'KAYA 1952: 79 (key, tax., Iran without exact locality).

Leucospis intermedia ILLIGER, 1807: BOUČEK 1956: 250 (Cyprus, Israel, Turkey).

Leucospis intermedia ILLIGER, 1807: BOUČEK 1959: 437 (key, figs 11, 12), 443 (tax, biol., widely distributed in the Mediterranean region up to central Asia, Egypt).

Leucospis intermedia ILLIGER, 1807: BOUČEK 1974: 104 (key), 140 (tax.), 149 (tax.), 153 (tax., biol., Afghanistan without exact locality, Algeria without exact locality, Egypt, Iran without exact locality, Israel without exact locality, Lebanon, Libya), 165 (fig. 187), 156 (key).

Leucospis intermedia ILLIGER, 1807: CASOLARI & CASOLARI MORENO 1980: 66 (Egypt, cat. Spinola Collection Torino).

Leucospis intermedia ILLIGER, 1807: MADL 1989: 437 (key, figs 11, 12), 201 (tax., Israel without exact locality, Lebanon without exact locality).

**Leucospis frenata* n.sp.: KLUG 1834: pl. 37 (figs 2, 3) (descr. ♂ ♀, Egypt).

Leucospis frenata KLUG, 1834: WESTWOOD 1839: 247 (tax., descr. ♂ ♀, Egypt).

Leucospis frenata KLUG, 1834: SCHLETERER 1890: 156 (tax.), 167 (key ♀), 170 (key ♂), 200 (tax., descr. ♂ ♀, Egypt), pl. 5 (fig. 16).

Leucospis frenata KLUG, 1834: DE DALLA TORRE 1898: 409 (cat.).

Leucospis frenata KLUG, 1834: SCHMIEDEKNECHT 1909: 16 (cat.).

Leucospis frenata KLUG, 1834: BOUČEK 1959: 443 (syn.).

Leucospis frenata KLUG, 1834: BOUČEK 1974: 153 (tax., type design.).

M a t e r i a l e x a m i n e d : Jordan: N Shuna, 1♀, 20-22.4.1996, leg. M. Halada; 1♀, 29-30.4.1996, leg. Ma. Halada – 10 km N Petra, 1♂, 3.5.1996, leg. Mi. Halada – Jordan Valley, Dayr Alla, 1♂, 27.4.1996, leg. Marek Halada; 1♂, 27.4.1996, leg. Mi. Halada – 20 km N Shuna, Tall ac Arbatin, 1♂, 19.4.1996, leg. Marek Halada – Lebanon: Bsharri (Becharre), The Cedars, 1900 m, 1♂, 24-30.6.1931, leg. H. Zerny (NHMW) – Syria: 30 km S Suwayda Dibbin, 1♂, 15-17.5.1996, leg. Marek Halada – Iran: Province Mazandaran, 75 km S Chalus, 2400 m, N Paßhöhe, 1♂, 24.7.1977, leg. A.W. Ebmer.

D i s t r i b u t i o n : Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Croatia (mainland, Hvar, Krk), Cyprus, Czech Republic, Egypt, France (mainland, Corsica), Germany, Greece (mainland), Hungary, Iran, Israel, Italy (mainland, Sardinia, Sicily), Jordan, Kazakhstan, Lebanon, Libya, Malta, Moldova, Morocco, Russia, Slovakia, Spain (mainland), Switzerland, Syria, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

First record for the fauna of Jordan and Syria.

***Leucospis miniata* KLUG, 1834**

**Leucospis miniata* n.sp.: KLUG 1834: pl. 37 (fig. 1), (descr. ♀, Egypt).

Leucospis miniata KLUG, 1834: SPINOLA 1838: 441 (cat., Egypt).

Leucospis miniata KLUG, 1834: WESTWOOD 1839: 244 (tax., descr. ♀, Egypt).

Leucospis ? miniata KLUG, 1834: WALKER 1846: 2 (tax., without exact locality, cat. British Museum London).

Leucospis miniata KLUG, 1834: WALKER 1860: 16 (cat.).

Leucospis miniata KLUG, 1834: LUCAS 1849: 316 (descr. ♂, Algeria), pl. 18 (figs 2, 2a-f).

Leucospis miniata KLUG, 1834: LUCAS 1858: 102 (biol., Algeria).

Leucospis miniata KLUG, 1834: SCHLETERER 1890: 155 (tax.), 157 (tax.), 168 (key ♀), 210 (tax., descr. ♀, Egypt).

Leucospis miniata KLUG, 1834: SHIPP 1894: 16 (tax.).

Leucospis miniata KLUG, 1834: DE DALLA TORRE 1898: 412 (cat.).

Leucospis miniata KLUG, 1834: SCHMIEDEKNECHT 1909: 16 (cat.).

Leucospis miniata KLUG, 1834: STOREY 1916: 5 (Egypt).

Leucospis miniata KLUG, 1834: BERLAND 1934a: 174 (tax., North Africa).

Leucospis miniata KLUG, 1834: BOUČEK 1959: 438 (key), 442 (tax., Egypt).

Leucospis miniata KLUG, 1834: BYTINSKI-SALZ 1963: 529 (tax., Egypt).

Leucospis miniata KLUG, 1834: BOUČEK 1974: 104 (key), 111 (fig. 158), 132 (tax., Algeria, Egypt, Israel, Libya, Morocco).

Leucospis miniata KLUG, 1834: CASOLARI & CASOLARI MORENO 1980: 66 (Egypt, Malta, cat. Spinola Collection Torino).

Leucospis miniata KLUG, 1834: MADL 1989: 201 (Egypt).

Leucospis miniata KLUG, 1834: BAUR & AMIET 2000: 364 (footnote: tax.).

Leucospis miniata KLUG, 1834: SCHMID-EGGER 2010: 323 (tax., Tunisia without exact locality, Israel without exact locality).

H o s t : Megachilidae: *Chalicodoma sicula* (ROSSIUS, 1792) (LUCAS 1858).

Distribution: Algeria, Egypt, Italy (Lampedusa), Israel, Lybia, Malta, Morocco, Tunisia.

***Leucospis vanharteni* SCHMID-EGGER, 2010**

Leucospis vanharteni nov.spec.: SCHMID-EGGER 2010: 322 (descr. ♀, biol., United Arab Emirates: Sharjah), 323 (pls 4-6), 324 (key, pl. 7).

Distribution: United Arab Emirates (Sharjah).

***Leucospis* sp.**

Leucospis aff. namibica BOUČEK, 1974: SCHMID-EGGER 2010: 321 (tax., pl. 3, Yemen).

Distribution: Yemen.

The identification is uncertain (SCHMID-EGGER 2010: 321).

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Zusammenfassung

Neue Funddaten der Familie Leucospidae (*Leucospis biguetina* JURINE, 1807, *L. brevicauda* FABRICIUS, 1804, *L. dorsigera* FABRICIUS, 1775, *L. gigas* FABRICIUS, 1793 und *L. intermedia* ILLIGER, 1807) von Nordafrika und vom Mittleren Osten werden mitgeteilt. Das Erscheinungsjahr von KLUG's Publikation (Die europäischen Arten der Insekten-Gattung: *Leucospis*) ist 1812.

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Authors' addresses:

Michael MADL
2. Zoologische Abteilung
Naturhistorisches Museum
Burgring 7
1010 Wien, Austria
E-mail: michael.madl@nhm-wien.ac.at

Martin SCHWARZ
Eben 21
4202 Kirchschlag, Austria
E-mail: schwarz-entomologie@aon.at

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

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