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A review of the Sphecidae (with the exception of Larrinae) of the Jeddah Region (west of Saudi Arabia), with a checklist of the species known from Saudi Arabia

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A b s t r a c t : A simplified key for 55 sphecid species collected and recorded from the Jeddah region (excluding those of the Subfamily Larrinae) is given. This is followed by a distribution list including all species recorded from Saudi Arabia. Seven species are newly recorded for the fauna of Saudi Arabia. These are: *Podalonia minax* (KOHL), *Astata cleopatra* PULAWSKI, *Mimesa aegyptiaca* RADOSZKOWSKI, *Dasyproctus arabs* (KOHL), *Hoplisoides ferrugineus* (SPINOLA), *Bembecinus bytinskii* de BEAUMONT, and *Ampulex compressa* (FABRICIUS).

The previously unknown female of *Cerceris zebra* GUICHARD is discussed, which is a new addition that has discovered recently.

K e y w o r d s : Hymenoptera, Sphecidae, Jeddah, Saudi Arabia.

Abbreviations

AS..... antennal segment
S..... sternum
SMC..... submarginal cell of fore wing
T..... tergum

Introduction

The present paper is the first part of two-part studies to record the Sphecidae collected from the Jeddah region that were collected in 2000 to 2002 as well as the previously recorded species in this region. The Subfamily Larrinae will be dealt later in a separate study.

Major studies concerning the Sphecidae of the Arabian Peninsula are those by: SHALABY (1960) who listed eight sphecid species recorded from different localities in Saudi Arabia in his list of Saudi Arabian insect species; de BEAUMONT (1962) on Sphecidae collected from Riyadh in his study of Sphecidae of Central Arabia; EMPEY (1973) on the *Cerceris* of Socotra and South Arabia; GUICHARD (1980) on Sphecidae of Oman; GUICHARD (1986) who constructed a simplified generic key comprising 63 sphecid genera that may occur in the Arabian Peninsula; GUICHARD (1988) on the Subfamily Sphecinae of Arabia; GUICHARD (1989a) on Arabian *Bembix* FABRICIUS; GUICHARD (1989b) on Arabian *Stizus* LATREILLE and *Stizoides* GUÉRIN-MÉNEVILLE; GUICHARD (1990) on Arabian

Oxybelus LATREILLE; GUICHARD (1993) on Arabian *Philanthus* FABRICIUS and *Philanthinus* de BEAUMONT; GUICHARD (1994) on Arabian *Cerceris* LATREILLE; and WALKER & PITTAWAY (1987) who recorded 11 sphecids species from Eastern Arabia.

In the present study, a simplified key was established comprising 55 sphecids species collected and recorded from the Jeddah region (West of Saudi Arabia). This is followed by a distribution list including all species recorded from Saudi Arabia. Seven species are newly recorded for Saudi Arabia: *Podalonia minax* (KOHL), *Astata cleopatra* PULAWSKI, *Mimesa aegyptiaca* RADOSZKOWSKI, *Dasyproctus arabs* (KOHL), *Hoplisoides ferrugineus* (SPINOLA), *Bembecinus bytinskii* de BEAUMONT, and *Ampulex compressa* (FABRICIUS). We also discuss the previously unknown female of *Cerceris zebra* GUICHARD which was recently discovered.

Material and Methods

Regular survey of the sphecids wasps was undertaken during two years time period (2000-2002), covering different regions of Jeddah (West of Saudi Arabia). Collecting was done by using the Japanese net and Malaise trap. Collected specimens were pinned, and provided with the data of collection. Specimens were sent to Dr. Michael Ohl (Institut für Systematische Zoologie, Museum für Naturkunde der Humboldt Universität at Berlin) for identification.

Drawings were made using a stereomicroscope with the aid of a camera lucida.

Key to the collected and recorded sphecids species of the Jeddah region

- 1 Forewing with one well-defined submarginal cell (submarginal cell of forewing not separated from discoidal cell)..... 2
- Forewing with two or three submarginal cells..... 5
- 2 With propodeal mucro; metanotum with small transparent projections on both sides (*Oxybelus*)..... 3
- Without propodeal mucro; metanotum without such projections on each side; (T₁ stalked, pedunculate, with two lateral yellow spots) *Dasyproctus arabs*
- 3 Propodeal mucro flattened, foliaceous, strongly emarginated at apex, obliquely and finely striated..... *Oxybelus lamellatus*
- Propodeal mucro short, broad, finger-like, concave or channelled longitudinally 4
- 4 Squamae slightly bifid; frons with golden to brownish pubescence not obscuring background beneath..... *Oxybelus palmatorum*
- Squamae obviously bifid; frons with dense silvery pubescence obscuring ground beneath; (propodeal mucro transversely striated; last tarsal joint distinctly swollen)..... *Oxybelus subspinosus*
- 5 Forewing with two submarginal cells; (shiny metallic blue to greenish species; prothorax relatively long) *Ampulex compressa*
- Forewing with three submarginal cells 6
- 6 Abdomen with a petiole comprising S₁ 7
- Abdomen not petiolate..... 23
- 7 Propodeum longitudinally rugosely striated anteriorly; smaller species less than 10mm long; (antennae more or less clavate; clypeus with two swellings near to free margin) *Mimesa aegyptiaca*

- Propodeum not as above; larger species may reaching 35mm	8
8 Propodeum with U-shaped dorsal enclosure	9
- Propodeum without U-shaped dorsal enclosure	10
9 Dorsal enclosure of propodeum regularly, transversely striated; abdomen metallic blue-green; hindwing without dark apex	<i>Chlorion funereum</i>
- Dorsal enclosure of propodeum irregularly transversely striated; abdomen metallic purple in colour; hindwing with dark apex	<i>Chlorion hirtum</i>
10 Metallic-blue species; (sides of propodeum with shining smooth unsculptured area on lower part)	<i>Chalybion heinii</i>
- Not metallic blue species	11
11 Second recurrent vein of forewing received by SMC ₂ in some <i>Parapsammophila</i> interstitial between SMC ₂ and SMC ₃	12
- Second recurrent vein of forewing received by SMC ₃	20
12 First abdominal tergite (T ₁) elongate, narrow; apex of S ₁ not reaching base of S ₂ ; spiracle of T ₁ placed at or after apex of S ₁ (<i>Ammophila</i>)	13
- First abdominal tergite (T ₁) short; S ₁ meets or overlaps base of S ₂ ; spiracle of T ₁ placed in basal half or about the middle of tergite	17
13 Black of abdomen with metallic blue to green reflections; pronotum with 4-5 transverse ridges; scutellum longitudinally and coarsely striated	<i>Ammophila haimatosoma</i>
- Black of abdomen dull; pronotum and scutellum not striated	14
14 Wings yellowish, smoky distally	<i>Ammophila insignis egregia</i>
- Wings more or less hyaline	15
15 Pronotum relatively long, humped; mesonotum transversely and finely striated	<i>Ammophila dolichodera</i>
- Pronotum shorter, much wider than long; mesonotum not striated transversely	16
16 Abdomen densely covered with long silvery pubescence obscuring ground beneath; pronotum marked with red	<i>Ammophila rubripes</i>
- Abdomen covered with microscopic pubescence, leaving ground visible; pronotum entirely black	<i>Ammophila erminea</i>
17 Mouth parts short; inner hind tibial spur finely pectinate (about 30mm long); (male entirely black, female red with black abdomen)	<i>Parapsammophila lateritia</i>
- Mouth parts long; inner hind tibial spur coarsely pectinate (smaller in size) (<i>Podalonia</i>) ...	18
18 Dorsal area of propodeum with rugose transverse striations	<i>Podalonia tydei</i>
- Dorsal area of propodeum very finely, transversely striated	19
19 With reddish to ferruginous legs, tegulae, and wing venation; pronotum and anterior half of mesonotum with silvery pubescence	<i>Podalonia minax</i>
- Legs and tegulae black; thorax bare	<i>Podalonia affinis</i>
20 Basal vein of SMC ₂ of forewing longer than anterior vein; inner hind tibial spur coarsely pectinate (<i>Prionyx</i>)	21
- Basal vein of SMC ₂ equal to or shorter than anterior vein; inner hind tibial spur finely pectinate; (entirely black with silver hew on abdomen; both base and apex of wing black)	<i>Sphex fumicatus</i>
21 Entirely black; wings orange with black tip	<i>Prionyx subfuscatus</i>
- Body partly red; wings more or less hyaline	22
22 Tarsal claws with four inner teeth	<i>Prionyx trichargyrus</i>
- Tarsal claws with three inner teeth	<i>Prionyx viduatus</i>
23 Forewing with distinctly petiolate SMC ₂ (<i>Cerceris</i>)	24
- Forewing with non-petiolate SMC ₂	37

24	T ₂₋₄ with distinct lateral projections	25
-	Abdominal tergites without lateral projections	27
25	Often entirely yellow species	<i>Cerceris chromatica</i>
-	Abdomen marked with black or ferruginous	26
26	Scutellum bituberculate; female clypeus very peculiar, strongly elevated and deeply emarginated at free margin (fig. 1); mandibles as in (fig. 2))	<i>Cerceris zebra</i>
-	Scutellum flattened	<i>Cerceris lateriproducta</i>
27	Male AS ₁₃ simple; S ₂ with elevated platform at base	28
-	Male AS ₁₃ (except <i>C. albopectoris</i>) often inwardly curved and truncate at apex; S ₂ without elevated platform at base	29
28	Black and white species; relatively large-sized; S ₆ with right-angled lateral sides; clypeus narrow, with four teeth at free margin	<i>Cerceris rufocincta</i>
-	Body with some ferruginous to reddish markings; smaller in size; S ₆ rounded laterally; clypeus with straight free margin	<i>Cerceris albicincta</i>
29	T ₂ relatively long and narrow, reddish, constricted at base; (T ₃ with broad white band posteriorly which may extend to S ₃)	<i>Cerceris alboatra</i>
-	T ₂ not constricted at base	30
30	T ₂₋₄ with small median apical impressions; male AS ₁₃ (except <i>C. albopectoris</i>) strongly curved inwardly, obviously truncate at apex	31
-	T ₂₋₄ without such impression; male AS ₁₃ slightly curved inwardly, slightly truncate at apex	36
31	Abdomen black banded with white	32
-	Abdomen with yellow and or/ ferruginous	33
32	S ₆ with sharply produced lateral angles; male AS ₁₃ slightly curved inwardly, slightly truncate at apex	<i>Cerceris albopectoris</i>
-	S ₆ with lateral angles somewhat rounded; male AS ₁₃ strongly curved inwardly, sharply truncate at apex	<i>Cerceris querula</i>
33	Middle metatarsus strongly sinuate; (clypeal moustaches golden, wider than free margin of clypeus)	<i>Cerceris spinipectus</i>
-	Middle metatarsus weakly sinuate	34
34	Small yellow and black species; sternites without obvious hair tufts	<i>Cerceris vittata eurypyga</i>
-	Larger species, with or without ferruginous; with or without hair tufts across sternites	35
35	Mostly yellow species; tip of forewing with vertical marking at its apical margin, that doesn't reach marginal cell	<i>Cerceris nugax</i>
-	Mostly ferruginous with some black; wings ferruginous to orange with dark tip	<i>Cerceris solitaria</i>
36	Black and whitish to yellowish in colour; male clypeal moustaches dense and wide almost reaching lateral margins of clypeus; pronotum normal; S ₆ without laterally produced spines; smaller in size	<i>Cerceris vagula</i>
-	Yellow, black and ferruginous in colour; pronotum slightly notched anteriorly; S ₆ with lateral produced spines	<i>Cerceris tricolorata</i>
37	Recurrent veins of forewing received one at SMC ₂ and the other at SMC ₃ ; inner margins of eyes deeply notched (<i>Philanthus</i>)	38
-	Both recurrent veins of forewing ending at SMC ₂ ; inner margins of eyes convex or rounded	41
38	Dorsal enclosure of propodeum densely punctured; female with two rounded teeth at free margin of clypeus; upper half of frons with characteristic crown-like whitish marking	<i>Philanthus triangulum</i>
-	Dorsal enclosure of propodeum smooth and shiny; female clypeus with no teeth at free margin; frons without such marking	39

- 39 Abdomen entirely yellow; upper area of mesopleuron punctuate; relatively large-sized *Philanthus variegatus*
- Abdomen yellow with some black or ferruginous; upper area of mesopleuron impunctate, shining; smaller in size 40
- 40 Mesonotum with three longitudinal dark or black lines in female, sometimes traces in male; with deep, spaced punctures; abdomen mostly yellow to creamy with some ferruginous *Philanthus pallidus*
- Mesonotum mostly shiny black; T₁ of abdomen ferruginous *Philanthus coarctatus*
- 41 Prestigmal length of SMC₁ more than half total length of that cell 42
- Prestigmal length of SMC₁ much less than half total length of that cell; (with two mid tibial spurs) 54
- 42 Ocelli vestigial; labrum elongate, beak-like, extending beyond mandibles (*Bembix*) 43
- Ocelli normal, lenticular; labrum not extended in a beak 49
- 43 S₂-S₅ smooth, shiny, without microsculptures; in male only middle femora denticulate ventrally 44
- S₂-S₅ dull, with fine punctures and pubescence; both fore and middle femora of male denticulate ventrally; (mesonotum with broad U-shaped yellow marking) *Bembix dahlbomi*
- 44 Relatively large species; wings slightly shaded at base; legs yellow; front metatarsus with six flattened spines; sternites ferruginous with lateral yellow spots *Bembix fischeri*
- Smaller in size; wings otherwise; sternites not ferruginous 45
- 45 Mesonotum with U-shaped yellow marking; mostly yellow species, yellow of abdomen grayish; (T₆ with black median line at tip; male S₂ not carinated) *Bembix olivacea*
- Mesonotum black, without U-shaped yellow marking; darker species 46
- 46 AS₁ entirely yellow; male AS₁₂ clearly convex above and beneath; (male S₇ with three carinae) *Bembix freygessneri*
- AS₁ black at least dorsally; male AS₁₂ more or less concave 47
- 47 Antennae black dorsally, yellow from beneath; male S₂ longitudinally carinated; S₆ raised to a blunt tooth at apex *Bembix arenaria*
- Antennae entirely black; male S₂ with weak or strong keel; S₆ with elevated triangular platform 48
- 48 Male S₂ with weak keel; labrum broadly blackened longitudinally in the middle; front metatarsus spotted with black from beneath; AS₃ shorter than AS₁ *Bembix lusca*
- Male S₂ with strong sharp keel; labrum rarely darkened; front metatarsus without black spots beneath; AS₃ about as long as AS₁ *Bembix oculata*
- 49 Median cell of hindwing with one distal veinlet appendix; male AS₁₁ with an inner apical spine, tip of AS₁₃ pointed; propodeum compressed posterolaterally into projecting ridge *Bembecinus bytinskii*
- Median cell of hindwing with two apical veinlet appendices; male antennae normal; propodeum not compressed posterolaterally (*Stizus*) 50
- 50 S₁ with keel at base; (abdominal tergites and sternites lemon yellow with few black) *Stizus hyalipennis*
- S₁ without keel at base 51
- 51 Relatively large species reaching 35mm; first transverse cubital vein bent in lower part; (thorax and abdominal T₁ uniformly ferruginous, remaining tergites mostly yellow) *Stizus vespoides*
- Smaller species; first transverse cubital vein straight 52
- 52 Scutellum with central fovea; male AS₁₃ strongly curved, truncate at apex *Stizus ruficornis*
- Scutellum without central fovea; male AS₁₃ otherwise 53

- 53 Forewing hyaline; thorax uniformly red to yellow *Stizus savignyi*
 - Forewing with dark apical margin; thorax with combination of red, yellow and black;
 scutellum red or yellow *Stizus lepidus*
 54 Abdomen petiolate, with long conical-shaped nodiform T₁, black with two yellow
 spots; mesopleuron with complete or incomplete sternaulus *Hoplisoides ferrugineus*
 - Abdomen sessile, normal; mesopleuron without sternaulus; smaller species
 *Astata cleopatra*

Systematic Checklist (including other species recorded from Saudi Arabia)

I. Subfamily S p h e c i n a e

Genus *Chlorion* LATREILLE 1802-1803

Chlorion funereum GRIBODO 1879

Chlorion funereum GRIBODO 1879 - Ann. Mus. Stor. Nat. Genova 14: 343, ♀.

D i s t r i b u t i o n : NE Africa south of Sahara, Hoggar, Tibesti, Jordan, Arabia. In Saudi Arabia, previously recorded from Jeddah, Abu Arish (GUICHARD 1988).

Chlorion hirtum (KOHLE 1885)

Sphex hirtus KOHLE 1885 - Termez. Fuzet. 9: 176, ♂.

D i s t r i b u t i o n : Algeria, Palestine, Jordan, Egypt, Arabia. In Saudi Arabia, previously recorded from Jeddah as *Sphex hirtus* KOHLE (SHALABY 1961).

Chlorion semenowi occidentale (de BEAUMONT 1962)

Chlorion bicolor WALKER 1871 - List of Hym. Collected by J.K. Lord in Egypt, London 20, ♀.

Sphex semenowi occidentalis de BEAUMONT 1962 - Boll. Ist. Ent. Univ. Bologna 26: 39, ♀, ♂.

D i s t r i b u t i o n : Egypt, Israel, Oman, Arabian Peninsula. In Saudi Arabia, previously recorded from Dabtiyah, Tabuk (GUICHARD 1988).

Chlorion splendidum FABRICIUS 1804

Chlorion splendidum FABRICIUS 1804 - Syst. Piez.: 218.

D i s t r i b u t i o n : India, Turkmenistan, Egypt (Sinai), Sudan, Madagascar, Saudi Arabia. In Saudi Arabia, previously recorded from Jizan as *Sphex splendidum* F. (SHALABY 1961).

Genus *Chalybion* DAHLBOM 1843

Chalybion flebile (LEPELETIER de SAINT-FARGEAU 1845)

Pelopoëus flebilis LEPELETIER de SAINT-FARGEAU 1845 - Hist. Nat. Insectes Hymenopt. 3: 321, ♀, ♂.

Pelopoëus targionii CARUCCIO 1872 - Bull. Soc. Ent. Ital. 4: 273.

D i s t r i b u t i o n : Mediterranean area, Iran, Iraq, Palestine, Arabia including Oman. In Saudi Arabia, previously recorded from Riyadh (GUICHARD 1988).

***Chalybion heinii* (Kohl 1906)**

Sceliphron heinii KOHL 1906 - Denkschr. K. Akad. Wiss. Wien. Math.-nat. Kl. 62: 26, ♀, ♂.

M a t e r i a l : 1 ♀, Hadasham (120 km east Jeddah), 2.3.2002; 1 ♀, South Jeddah, 1.4.2002.

D i s t r i b u t i o n : Tropical East Africa, Arabia, Egypt. In Saudi Arabia, previously recorded with no specific locality (HENSEN 1988), and from Abu Arish, and Amjara (GUICHARD 1988).

Genus *Sphex* LINNAEUS 1758

***Sphex fumicatus* CHRIST 1791**

Sphex fumicata CHRIST 1791 - Naturgesch. Insekt.: 295.

M a t e r i a l : 2 ♀♀, 1 ♂, Hadasham (120 km. east Jeddah), 8.2002.

D i s t r i b u t i o n : Arabia (Oman and UAE), Tropical Africa, South India, East Mediterranean Region. In Saudi Arabia, previously recorded from Jeddah as *Sphex umbrosus* CHRIST (SHALABY 1961).

***Sphex pruinosus* GERMAR 1817**

Sphex pruinosa GERMAR 1817 - Reise nach Dalmatien: 261, ♂.

D i s t r i b u t i o n : Mediterranean area, N Africa, Arabia. In Saudi Arabia, previously recorded from Abu Arish (GUICHARD 1988).

Genus *Isodontia* PATTON 1881

***Isodontia pelopoeiformis* (DAHLBOM 1845)**

Sphex pelopoeiformis DAHLBOM 1845 - Hym. Europ. 1: 437.

D i s t r i b u t i o n : Tropical Africa, Egypt, Central African Republic, Saudi Arabia. In Saudi Arabia, previously recorded from Jizan (GUICHARD 1988).

Genus *Prionyx* VANDER LINDEN 1827

***Prionyx crudelis* (F. SMITH 1856)**

Harpactopus crudelis F. SMITH 1856 - Cat. Hym. Insects Brit. Mus. 4: 264.

D i s t r i b u t i o n : E Mediterranean, Africa, India, Arabia. In Saudi Arabia, previously recorded from Riyadh (de BEAUMONT 1962 as *Sphex crudelis*; and in East Arabia as *Prionyx crudelis* (WALKER & PITTAWAY 1987; GUICHARD 1988).

***Prionyx kirbii marginatus* (F. SMITH 1856)**

Parasphex marginata F. SMITH 1856 - Cat. Hym. Insects Brit. Mus. 4: 267, ♀, ♂.

D i s t r i b u t i o n : Africa, Arabia. In Saudi Arabia, previously recorded from Mahail, Abu Arish (GUICHARD 1988).

***Prionyx macula* (FABRICIUS 1804)**

Pepsis macula FABRICIUS 1804 - Syst. Piez.: 210.

Distribution: N Africa, Palestine, Iraq, Iran, Arabia. In Saudi Arabia, the holotype previously recorded with no specific locality (van der VECHT 1961), and from Riyadh (de BEAUMONT 1962; GUICHARD 1988), Nejd, Jebel Tweiq, Hail, Ras Saminal (GUICHARD 1988).

***Prionyx niveatus* (DUFOR 1863)**

Sphex niveatus DUFOR 1863 - Ann. Soc. Ent. France 3 (1): 377, ♀, ♂.

Distribution: N Africa, Palestine, Iran, distributed in Arabia including UAR, Qatar, and Oman.

***Prionyx senelis* (MORICE 1911)**

Sphex senelis MORICE 1911 - Trans. Ent. Soc. London: 75, ♀, ♂.

Distribution: N Africa, Saudi Arabia. In Saudi Arabia, previously recorded from Riyadh (de BEAUMONT 1962; GUICHARD 1988), Hail District (GUICHARD 1988).

***Prionyx stschurowskii hyalipennis* (KOHL 1895)**

Sphex (Harpactopus) stschurowskii hyalipennis KOHL 1895 - Ann. Soc. Ent. France 94: 369.

Distribution: N Africa, Palestine, Iran, Iraq, Arabia. In Saudi Arabia, previously recorded from Ras Saminal (GUICHARD 1988).

***Prionyx subfuscatus* (DAHLBOM 1845)**

Sphex subfuscatus DAHLBOM 1845 - Hym. Europ. 1: 436.

Distribution: Mediterranean region, Africa, India, Saudi Arabia. In Saudi Arabia, previously recorded from Jeddah (GUICHARD 1988).

***Prionyx trichagyrs* (SPINOLA 1839)**

Sphex trichagyra SPINOLA 1839 - Ann. Soc. Ent. France 7: 466, ♂.

Material: 1♀, Obhor (north Jeddah), 7.4.2002.

Distribution: Senegal, Egypt, Morocco, Tunisia, Arabia. In Saudi Arabia, previously recorded from Nejd, Ha'il, Abu Arish (GUICHARD 1988).

***Prionyx viduatus* (CHRIST 1791)**

Sphex viduatus CHRIST 1791 - Naturgesch. Insekt.: 305.

Sphex perezii BERLAND 1927 - Bull. Mus. N. Hist. Nat., Paris 32: 170

Material: 1♂, Bahra (east Jeddah), 23.10.2001; 1♀, south Jeddah, 28.1.2002; 1♀, south east Jeddah, 1.4.2002; 1♂, east Jeddah, 7.4.2002.

Distribution: Mediterranean Region, Africa, India, China, common and widespread in Arabia (Oman, UAE, Qatar and Yemen).

Genus *Parapsammophila* TASCHENBERG 1869

***Parapsammophila algira* (KOHL 1901)**

Ammophila algira KOHL 1901 - Ann. Naturhist. Mus. Wien 16: 147, ♀.

Distribution: N Africa, Israel, Afghanistan, Iran, Arabia including Oman. In Saudi Arabia, previously recorded from Riyadh (GUICHARD 1988).

***Parapsammophila dolichostoma* (Kohl 1901)**

Ammophila dolichostoma KOHL 1901 - Ann. Naturhist. Mus. Wien 16: 146, ♀.

Distribution: Egypt, Sahara, Arabia. In Saudi Arabia, syntypes had been recorded with no specific locality (Kohl 1901), and from Riyadh, Madain Salih (Guichard 1988).

***Parapsammophila lateritia* Taschenberg 1869**

Parapsammophila lateritia TASCHENBERG 1869 - Zeitschr. ges. Naturwiss. 34: 431, ♀.

Distribution: N Africa, Sudan, Mali, W India, Saudi Arabia. In Saudi Arabia, previously recorded from Riyadh (de Beaumont 1962; Guichard 1988), Jeddah, Wadi Fatima near Jeddah, Qunfida (Guichard 1988).

***Parapsammophila turanica* F. Morawitz 1890**

Parapsammophila turanica F. MORAWITZ 1890 - Hor. Ent. Ross. 24: 582, ♂.

Distribution: N Africa, Israel, S Asia, Saudi Arabia. In Saudi Arabia, previously recorded from Summan Plateau, Riyadh as *Ammophila lutea* (de Beaumont 1962) and as *Parapsammophila turanica* (Walker & Pittaway 1987; Guichard 1988).

Genus *Podalonia* Fernald 1927

***Podalonia affinis* (W. Kirby 1798)**

Ammophila affinis KIRBY 1798 - Trans. Lin. Soc. Lond. 4: 195, ♀.

Material: 1♀, Hadasham (120km, East Jeddah), 10.10.2002.

Distribution: Palearctic Region. In Saudi Arabia, previously recorded from Asir, Taif, Jebel al Hamriyah (Guichard 1988).

***Podalonia minax* (Kohl 1901)**

Ammophila (Psammophila) minax KOHL 1901 - Ann. Naturhist. Mus. Wien 16: 162, ♀.

Material: 1♀, Khomra (south Jeddah), 9.10.2000.

Distribution: Egypt, Morocco, Western Sahara, Algeria, Libya, Kuwait, Genova, new to Canary Island. Newly recorded from Saudi Arabia.

***Podalonia tydei* (Le Guillou 1841)**

Ammophila tydei LE GUILLOU 1841 - Ann. Soc. Ent. France 10: 324, ♀.

Material: 1♀, Hadasham (120km, east Jeddah), 10.9.2002.

Distribution: Africa, Asia, Mediterranean Region. In Saudi Arabia, previously recorded from Taif (as *Ammophila tydei*) (Shalaby 1961); East Arabia (Walker & Pittaway 1987); Riyadh, Hofuf, Jeddah, Abu Arish (Guichard 1988).

Genus *Ammophila* W. KIRBY 1798

***Ammophila dolichodera* KOHL 1884**

Ammophila dolichodera KOHL 1884 - Verhandl. Zool. Bot. Ges. Wien 33: 383, ♂. Distribution: S Africa north to Mali and Niger, W Arabia. In Saudi Arabia, previously recorded from Bahra near Jeddah, Wadi Majarish below Taif, Abu Arish (GUICHARD 1988).

***Ammophila ermenia* KOHL 1901**

Ammophila ermenia KOHL 1901 - Ann. Naturhist. Mus. Wien 16: 157, ♀, ♂.

Distribution: N Africa, Jordan, Palestine, Arabia. In Saudi Arabia, previously recorded from near Jeddah, Al Ha'ir (GUICHARD 1988).

***Ammophila haimatosoma* KOHL 1883**

Ammophila haimatosoma KOHL 1883 - Verhandl. Zool. Bot. Ges. Wien 33: 383, ♀.

Material: 1♀, 1♂, Abug (east Jeddah), 28.1.2002; 2♂♂, north Jeddah, 22.11.2002; 1♂, south Jeddah, 27.11.2002.

Distribution: North Africa, Palestine, Arabia, Pakistan. In Saudi Arabia, previously recorded from Abu Arish, Jeddah, Qunfida, Fayfa, Al Lith (GUICHARD 1988)

***Ammophila insignis egregia* MOCSARY 1881**

Ammophila egregia MOCSARY 1881 - Ent. Nachr. 7: 327, ♀, ♂.

Material: 1♀, south Jeddah, 27.11.2002.

Distribution: Lebanon, Palestine, Syria, Arabia, Europe, Africa, Israel, Jordan. In Saudi Arabia, previously recorded from Riyadh, Ad Diriyah (GUICHARD 1988).

***Ammophila poecilcnemis* MORICE 1900**

Ammophila poecilcnemis MORICE 1900 - Ann. Mag. Nat. Hist. 5: 67, ♀, ♂.

Distribution: N Africa, Sudan, Palestine, Oman. In Saudi Arabia, previously recorded from Abu Arish, Ad Diriyah (GUICHARD 1988).

***Ammophila producticollis* MORICE 1900**

Ammophila producticollis MORICE 1900 - Ann. Mag. Nat. Hist. 5: 70, ♀.

Distribution: N Africa, Palestine, Arabia. In Saudi Arabia, previously recorded from Ha'il District (GUICHARD 1988).

***Ammophila punti* GUICHARD 1988**

Ammophila beniniensis (PALISOT DE BEAUVOIS 1806) - GUICHARD 1988 - Fauna of Saudi Arabia 8: 129, ♀, ♂; misidentification.

Distribution: Oman, Yemen, Saudi Arabia. In Saudi Arabia, previously recorded from Fayfa 200m (60 km north of Jizan) (GUICHARD 1988).

***Ammophila rubripes* SPINOLA 1839**

Ammophila rubripes SPINOLA 1839 - Ann. Soc. Ent. France 7: 465, ♀.

Material: 1♀, Hadasham (120 km east Jeddah), 9.2002.

Distribution: Egypt, Sudan, Europe, Algeria, Somalia, Eritrea, Israel, Zaire, Tanzania, Arabia (including Oman). This species is common and widely spread at lower altitudes in Arabia (GUICHARD 1988).

Subfamily *Ampulicinae*

Genus Ampulex JURINE 1807

Ampulex compressa (FABRICIUS 1781)

Sphex compressa FABRICIUS 1781 - Carol. Ernest. Bohnii, Hamburgiet et Kilonii: 445.

Material: 1♂, Hadasham, 2.3.2002.

Distribution: India, Bourbon Island, Madagascar, Sri Lanka, Kenya, Zanzibar, Philippines, New Carolina, Hawaii, Ethiopia, southern Arabia, Bangladesh, China, Tanzania. Newly recorded for Saudi Arabia.

II. Subfamily *Astatinae*

Genus Astatia LATREILLE 1796

Astata cleopatra PULAWSKI 1959

Astata cleopatra PULAWSKI 1959 - Polskie Pismo Ent. 29: 372, ♀.

Material: 1♀, Hadasham (120km east Jeddah), 26.2.2002.

Distribution: Egypt. Newly recorded for Saudi Arabia.

Subfamily *Pemphredoninae*

Genus Mimesa SHUCKARD 1937

Mimesa aegyptiaca RADOSZKOWSKI 1876

Mimesa aegyptiaca RADOSZKOWSKI 1876 - Horae Soc. Ent. Rossicae 12: 131, ♀, ♂.

Material: 1♀, Hadasham (120km east of Jeddah), 23.4.2002.

Distribution: Egypt. Newly recorded for Saudi Arabia.

IV. Subfamily *Craobroninae*

Genus Oxybelus LATREILLE 1796

Oxybelus arabicus GUICHARD 1990

Oxybelus arabicus GUICHARD 1990 - Fauna of Saudi Arabia 11: 283, ♀, ♂.

Distribution: Saudi Arabia, Oman, UAE, Jordan. In Saudi Arabia, previously recorded from Riyadh (GUICHARD 1990).

***Oxybelus aurantiacus* MOCSÁRY 1883**

Oxybelus aurantiacus MOCSÁRY 1883 - Magy. Akad. Term. Ertek. XIII: 48, ♀.

Distribution: Hungary, France, Bulgaria, Spain, Portugal, Turkey, Kazakhstan, Turkmenistan, Eastern Slovakia, Yugoslavia, Greece, Egypt, Algeria, Morocco, Israel, Yemen, Saudi Arabia. In Saudi Arabia, this species had been recorded from Al Ha'ir, Wadi Majarish (GUICHARD 1990).

***Oxybelus collaris* KOHL 1884**

Oxybelus collaris KOHL 1884 - Termez. Füzetek 8: 107, ♀.

Distribution: Egypt, Jordan, UAE, Saudi Arabia. In Saudi Arabia, previously recorded from Dirab Agriculture Station (GUICHARD 1990).

***Oxybelus fischeri* SPINOLA 1839**

Oxybelus fischeri SPINOLA 1839 - Ann. Soc. Ent. France 7: 484, ♀.

Distribution: N Africa, Canary Island, Israel, Yemen, Saudi Arabia, Spain. In Saudi Arabia, previously recorded from Dirab Agriculture Station, Al- Kharj (GUICHARD 1990).

***Oxybelus lamellatus* OLIVIER 1811**

Oxybelus lamellatus OLIVIER 1811 - Encycl. meth. VIII: 595.

Material: Large number were collected from different localities in Jeddah all around the year.

Distribution: South France, Iberian Peninsula, North Africa, North West India. This species is common in Saudi Arabia. It had been recorded from many sandy localities and various altitudes up to 1200m (GUICHARD 1990).

***Oxybelus lanceolatus* GERSTAECKER 1867**

Oxybelus lanceolatus GERSTAECKER 1867 - Zeit. Ges. Naturw. 30: 26, ♀.

Distribution: Saudi Arabia, where the syntypes of this species had been recorded with no specific locality (GERSTAECKER 1867).

***Oxybelus palmatorum* de BEAUMONT 1950**

Oxybelus palmatorum de BEAUMONT 1950 - Bull. Brit. Mus. (Nat. Hist.) Ent. 1: 416, ♀.

Distribution: Egypt, Algeria, Saudi Arabia. In Saudi Arabia, this species had been recorded from Wadi Majarish, Jeddah (GUICHARD 1990).

***Oxybelus subspinosus* KLUG 1835**

Oxybelus subspinosus KLUG 1835 - Walt. Reise Südl. Spanien 2: 98, ♀.

Material: as in the previous species.

Distribution: North Africa, Middle East, South Europe. In Saudi Arabia, previously recorded from Riyadh (GUICHARD 1990).

***Oxybelus tinklyi* GUICHARD 1990**

Oxybelus tinklyi GUICHARD 1990 - Fauna of Saudi Arabia 11: 282, ♀, ♂.

Distribution: Israel, Saudi Arabia, Yemen, UAE, Mali, Niger. In Saudi Arabia, previously recorded from Al Ha'ir near Riyadh, Ad Diriyah, Abu Arish (GUICHARD 1990).

Genus *Dasyproctus* LEPELETIER & BRULLE 1834

***Dasyproctus arabs* (KOHLE 1894)**

Crabro arabs KOHLE 1894 - Ann. K. K. Naturhist. Hofm. Wien. ix (3): 283, ♀.

M a t e r i a l : 3 ♀ ♀, Hadasham (120km east Jeddah), 2-16.3.2002; 1 ♂, Hadasham, 30.3.2002.

D i s t r i b u t i o n : Pakistan, Iran, Syria, Israel, Egypt, Algeria, Uganda, Somalia. Newly recorded for Saudi Arabia.

Genus *Crossocerus* LEPELETIER de SAINT FARGEAU & BRULLÉ 1835

***Crossocerus adhaesus* (KOHLE 1915)**

Crabro adhaesus KOHLE 1915 - Ann. K. K. Nat. Hofm. 29: 261, ♂.

D i s t r i b u t i o n : Cyprus, Tajikistan, Greece, Turkey, Egypt, Sudan, Yemen, Saudi Arabia. In Saudi Arabia, previously recorded with no specific locality (LECLERCQ 1993).

V. Subfamily B e m b i c i n a e (= Nyssoninae, MENKE 1997)

Genus *Hoplisoides* GRIBODO 1884

***Hoplisoides ferrugineus* (SPINOLA 1838)**

Hoplisoides ferrugineus SPINOLA 1838 - Ann. Soc. Ent. France, 497, ♂.

M a t e r i a l : 1 ♂, west Jeddah, 9.11.2001; 1 ♂, Obhor (north Jeddah), 10.1.2002; 2 ♂ ♂, south Jeddah, 27.11.2002.

D i s t r i b u t i o n : Egypt, Libya, Oman. Newly recorded for Saudi Arabia

Genus *Stizus* LATREILLE 1802-1803

***Stizus bizonatus* SPINOLA 1839**

Stizus bizonatus SPINOLA 1839 - Ann. Soc. Ent. France 7: 475, ♀, ♂.

D i s t r i b u t i o n : Iraq, Saudi Arabia, UAE, Africa, Red Sea Coast. In Saudi Arabia, previously recorded from Hofuf, Abu Arish (GUICHARD 1989b).

***Stizus combustus* (F. SMITH 1856)**

Larra fuliginosa KLUG 1845 - Symb. Phys.: 24, ♂.

Larra combusta F. SMITH 1856. - Cat. Hym. Insects Brit. Mus. 4: 341, ♀.

D i s t r i b u t i o n : N Africa, Sudan, Yemen, Oman, Saudi Arabia, Asia Minor, Israel. In Saudi Arabia this species had been recorded from Riyadh, Qunfida, Hofuf (GUICHARD 1989b).

***Stizus fuscatus* MORICE 1897**

Stizus fuscatus MORICE 1897 - Trans. Ent. Soc. 3: 312, ♂.

D i s t r i b u t i o n : Egypt, Libya, Morocco, Western Sahara, Saudi Arabia, UAE, Israel. In Saudi Arabia, previously recorded from Riyadh (de BEAUMONT 1962; GUICHARD 1989b), Qunfida (GUICHARD 1989b).

***Stizus hyalipennis* HANDLIRSCH 1892**

Stizus hyalipennis HANDLIRSCH 1892 - Sitz. Akad. Wiss. Wien 97: 142, ♀, ♂.

Distribution: Egypt, Libya, Algeria, Western Sahara, Spain, Palestine, Israel, Saudi Arabia. In Saudi Arabia, previously recorded from Jeddah (GUICHARD 1989b).

***Stizus lepidus* (KLUG 1845).**

Larra lepidus KLUG 1845 - Symb. Phys.: 21, ♂.

Distribution: Egypt, Mali, Niger, Sudan, Arabia. In Saudi Arabia, previously recorded from 100 km east Jeddah, Wadi Majarish (GUICHARD 1989b).

***Stizus marnonis* HANDLIRSCH 1892**

Stizus Marnonis HANDLIRSCH 1892 - Sitz. Akad. Wiss. Wien 97: 145, ♀.

Distribution: Sudan, Eritrea, Arabian Peninsula. In Saudi Arabia, previously recorded from Central and south Saudi Arabia (WALKER & PITTAWAY 1987).

***Stizus marthae* HANDLIRSCH 1892**

Stizus marthae HANDLIRSCH 1892 - Sitz. Akad. Wiss. Wien 6: 143, ♂.

Distribution: Libya, Algeria, Israel, Oman, Saudi Arabia. In Saudi Arabia, this species had been recorded from Hofuf (GUICHARD 1989b).

***Stizus nadigi* ROTH in NADIG 1933**

Stizus nadigi ROTH (in NADIG) 1933 - Jarb. Naturforsch. Ges. Graubündes 71: 881, ♀, ♂.

Distribution: Morocco, Chad, Qatar, Saudi Arabia, UAE, Mali, Somalia, W India. In Saudi Arabia, previously recorded from Wadi Majarish and Al Ha'ir (GUICHARD 1989b).

***Stizus niloticus* HANDLIRSCH 1892**

Stizus niloticus HANDLIRSCH 1892 - Sitz. Akad. Wiss. Wien 97: 134, ♂.

Distribution: Egypt, Israel, Libya, Chad, Saudi Arabia, Oman, Yemen. In Saudi Arabia, this species had been recorded from Riyadh (de BEAUMONT 1962); Al Ha'ir near Riyadh (GUICHARD 1989b).

***Stizus ruficornis* (J. FORSTER 1771)**

Vespa ruficornis J. FORSTER 1771 - N. Sp. Ins. Viii: 90.

Distribution: Spain, Russia, Tunisia, Malta, Italy, Greece, Portugal, France, Uzbekistan, Romania, Kazakhstan, Arabian Peninsula, China, Iran, Palestine. In Saudi Arabia, previously recorded from Bahra, Wadi Majarish, Jizan, Al Ha'ir (GUICHARD 1989b).

***Stizus savignyi* SPINOLA 1838**

Stizus savignyi SPINOLA 1838 - Ann. Soc. Ent. France 7: 471, ♀, ♂.

Material: 2 ♀, north Jeddah, 13-15.5.2002.

Distribution: North Africa, Tibesti, Eritrea, Arabia. In Saudi Arabia, previously recorded from Wadi El Ammariya, near Jeddah (GUICHARD 1989b).

***Stizus vespoides* (WALKER 1871)**

Larra vespoides WALKER 1871 - List of Hymenoptera 25, ♀.

M a t e r i a l : 1♂, 1♀, north Jeddah, 15.5.2002.

D i s t r i b u t i o n : North Africa, Somaliland, Palestine, Arabia. In Saudi Arabia, previously recorded from Jeddah (SHALABY 1961); East Arabia (WALKER & PITTAWAY 1987); Abu Ariah, 2 mm from Bahra (east Jeddah) (GUICHARD 1989b).

***Stizus zonatus* (KLUG 1845)**

Larra zonata KLUG 1845 - Symb. Phys. V: 21, pl. 46, fig. 2, ♀.

D i s t r i b u t i o n : Egypt, Eretria, Libya, Saudi Arabia. In Saudi Arabia, the holotype had been recorded with no specific locality as *Larra zonata* KLUG (KLUG 1845).

***Stizus* sp.**

D i s t r i b u t i o n : New South Wales, Tanzania, China, Spain, Saudi Arabia. In Saudi Arabia, previously recorded from Riyadh (de BEAUMONT 1962).

Genus *Stizoides* GUÉRIN-MÉNEVILLE 1844

***Stizoides assimilis* (FABRICIUS 1787)**

Sphex assimilis FABRICIUS 1787 - CHRIST. Gottl. Haplinae: 276.

D i s t r i b u t i o n : N Africa, Israel, Palestine, Saudi Arabia, Iran, Turkmenistan, Tajikistan. In Saudi Arabia, this species had been recorded in Riyadh as *Stizoides poecilopterus* Handlirsh (de BEAUMONT 1962; GUICHARD 1989b).

***Stizoides klugii* (F. SMITH 1845)**

Larra apicalis KLUG 1845 - Symb. phys. 5: 24, ♂.

Larra klugii F. SMITH 1856 - Cat. Hym. Ins. Brit. Mus.: 345.

D i s t r i b u t i o n : Saudi Arabia, Yemen, Algeria, Egypt, Libya, Israel. In Saudi Arabia, this species had been recorded as *Larra apicalis* with no specific locality (KLUG 1845); as *Stizus klugii* (HANDLIRSCH), and as *Stizoides klugii* from Riyadh (de BEAUMONT 1962) during his study of KLUG's type materials from Saudi Arabia.. It was also recorded from Riyadh and Abu Arish (GUICHARD 1989b).

Genus *Bembix* FABRICIUS 1775

***Bembix arenaria* HANDLIRSCH 1893**

Bembix arenaria HANDLIRSCH 1893 - Sitzb. Akad. Wiss. Wien (1) 102: 65, ♀, ♂.

M a t e r i a l : This species is common in Jeddah all around the year.

D i s t r i b u t i o n : Syria, Palestine, Arabia, new to Egypt (GADALLAH 1997). In Saudi Arabia, previously recorded from Jeddah, Bahra (near Jeddah), Taif, and Abu Arish (GUICHARD 1989a).

***Bembix buettikeri* GUICHARD 1989**

Bembix buettikeri GUICHARD 1989 - Fauna of Saudi Arabia 10: 148, ♂.

D i s t r i b u t i o n : Saudi Arabia (Mibhil) (GUICHARD 1989a).

***Bembix capensis* LEPELETIER de SAINT FARGEAU 1845**

Bembex capensis LEPELETIER DE SAINT FARGEAU 1845 - Hist. Nat. 3: 273, ♂.

D i s t r i b u t i o n : South Africa, Egypt, Yemen, Saudi Arabia. In Saudi Arabia, this species had been recorded from Taif and Wadi Maraba (GUICHARD 1989a).

***Bembix chlorotica* SPINOLA 1839**

Bembix chlorotica SPINOLA 1839 - Ann. Soc. Ent. France 7: 469, ♀.

D i s t r i b u t i o n : North Africa, China, Arabian Peninsula, Jordan. In Saudi Arabia, this species had been recorded from Riyadh (SHALABY 1961; de BEAUMONT 1962), Hofuf, and Wadi Rasid (GUICHARD 1989a).

***Bembix chopardi* BERLAND 1950**

Bembix chopardi BERLAND 1950 - Mem. Inst. Francaise Afr. noire 10: 297, ♀, ♂.

D i s t r i b u t i o n : Niger, Egypt, Arabian Peninsula. In Saudi Arabia, previously recorded with no specific locality (PRIESNER 1958), it had been also recorded from Riyadh and Qunfida (GUICHARD 1989a).

***Bembix clypealis* GUICHARD 1989**

Bembix clypealis GUICHARD 1989 - Fauna of Saudi Arabia 10: 142, ♀.

D i s t r i b u t i o n : Palestine, Algeria, Israel, Saudi Arabia. In Saudi Arabia, previously recorded from Abu Arish, Wadi Al Ammariya, nw Riyadh (GUICHARD 1989a).

***Bembix dahlbomi* HANDLIRSCH 1893**

Bembix dahlbomi HANDLIRSCH 1893 - Sitzb. Akad. Wiss. Wien (1) 102: 806.

D i s t r i b u t i o n : North Africa, Sudan, Eritria, Ethiopia, Mauritania, Israel, Arabian Peninsula. In Saudi Arabia, previously recorded from Hedjas (PRIESNER 1958), Muzahimiya Sands, Bahra (near Jeddah) (GUICHARD 1989a).

***Bembix fischeri* SPINOLA 1839**

Bembix fischeri SPINOLA 1839 - Ann. Soc. Ent. France 7: 470, ♀.

D i s t r i b u t i o n : Egypt, Libya, Morocco, Baluchistan, Saudi Arabia. In Saudi Arabia, previously recorded from Jeddah (SHALABY 1961), Medain Salih (GUICHARD 1989a).

***Bembix freygessneri* MORICE 1897**

Bembix freygessneri MORICE 1897 - Trans. Entomol. Soc. London 3: 315, ♂.

D i s t r i b u t i o n : Egypt, Libya, Algeria, Sudan, Mauritania, Chad, Oman, Arabian Peninsula. This species is very common and widely distributed throughout Saudi Arabia (GUICHARD 1989a).

***Bembix fuscipennis* LEPELETIER de SAINT FARGEAU 1845**

Bembex fuscipennis LEPELETIER DE SAINT FARGEAU 1845 - Hist. Nat. 3: 271, ♀, ♂.

D i s t r i b u t i o n : South Africa, Zaire, Niger, Eritria, Rwanda, Zimbabwe, Yemen, Saudi Arabia. In Saudi Arabia, previously recorded from Abu Arish (GUICHARD 1989a).

***Bembix hofufensis* GUICHARD 1989**

Bembix hofufensis GUICHARD 1989 - Fauna of Saudi Arabia 10: 142, ♂, ♀.

D i s t r i b u t i o n : Saudi Arabia (Hofuf) (GUICHARD 1989a).

***Bembix irritata* NURSE 1903**

Bembix irritata NURSE 1903 - J. Bombay Nat. Hist. Soc. 15: 523, ♀, ♂.

D i s t r i b u t i o n : India, Arabian Peninsula. In Saudi Arabia, previously recorded from Wadi Qanuna, Riyadh, Hanakiya (GUICHARD 1989a).

***Bembix lusca* SPINOLA 1839**

Bembix lusca SPINOLA 1839.-Ann. Soc. Ent. France 7: 467, ♀, ♂.

D i s t r i b u t i o n : Egypt, Sudan. In Saudi Arabia, previously recorded from Jeddah (SHALABY 1961).

***Bembix nilotica* PRIESNER 1958**

Bembix nilotica PRIESNER 1958 - Bull. Soc. Ent. d'Egypte 42: 15, ♀, ♂.

D i s t r i b u t i o n : Egypt, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Taif, Hofuf, Beish (Jizan) (GUICHARD 1989a).

***Bembix oculata* LATREILLE 1805**

Bembix oculata LATREILLE 1805 - Hist. Nat. 13: 301.

M a t e r i a l : 1 ♀, south Jeddah, 28.1.2002; 1 ♂, south Jeddah, 6.2.2002.

D i s t r i b u t i o n : Common in Europe, Asia, North Africa, Arabia. In Saudi Arabia, very common in Riyadh and Jeddah (GUICHARD 1989a).

***Bembix olivacea* FABRICIUS 1787**

Bembyx olivacea FABRICIUS 1787 - Mant. Ins. 4: 285.

D i s t r i b u t i o n : North Africa, Canary Is., Italy, France, Spain, Hungary, Russia, Madagascar, Turkey, Yugoslavia, Mauritania, Iran, Portugal, Ethiopia, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Jeddah (GUICHARD 1989a).

***Bembix priesneri* de BEAUMONT 1966**

Bembix priesneri de BEAUMONT 1966 - Mitt. Schweiz. Ent. Ges. 38: 209, ♂, ♀.

D i s t r i b u t i o n : Egypt, Morocco, Mali, Qatar, Saudi Arabia. In Saudi Arabia, this species had been recorded from Hofuf (GUICHARD 1989a).

***Bembix rufiventris* PRIESNER 1958**

Bembyx rufiventris PRIESNER 1958 - Bull. Soc. Ent. d'Egypte 42: 19, ♀, ♂.

D i s t r i b u t i o n : Egypt, Oman, Jordan, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Riyadh (BEAUMONT 1962), Hofuf (GUICHARD 1989a).

***Bembix saudi* GUICHARD 1989**

Bembix saudi GUICHARD 1989 - Fauna of Saudi Arabia 10: 150, ♂.

D i s t r i b u t i o n : Saudi Arabia. In Saudi Arabia, previously recorded from Al Ha'ir near Riyadh (GUICHARD 1989a).

Genus *Bembecinus* A. COSTA 1859

***Bembecinus bytinskii* de BEAUMONT 1954**

Bembecinus bytinskii de BEAUMONT 1954 - Mitt. Schweiz. Ent. Ges. 27: 255, ♀.

M a t e r i a l : 1♀, Hadasham, 16.3.2002; 1♂, Hadasham (120km east Jeddah), 23.4.2002.

D i s t r i b u t i o n : Israel, Oman. Newly recorded for Saudi Arabia.

Subfamily *Philanthinae*

Genus *Philanthus* FABRICIUS 1790

***Philanthus coarctatus* SPINOLA 1838**

Philanthus coarctatus SPINOLA 1838 - Ann. Soc. Ent. France 7: 486, ♀, ♂.

M a t e r i a l : Large numbers of both sexes were collected from different localities in Jeddah all around the year.

D i s t r i b u t i o n : North Africa, Palestine, Jordan, Arabia, Sudan, Niger, Turkey, Baluchistan. In Saudi Arabia, previously recorded from Riyadh, Jeddah, Hofuf (GUICHARD 1994).

***Philanthus pallidus* KLUG 1845**

Philanthus pallidus KLUG 1845 - Symb. phys. V [28], pl. 47, fig. 8, ♂.

D i s t r i b u t i o n : Ethiopia, Eritrea, Mauritania, Egypt, Morocco, Israel, Arabian Peninsula. In Saudi Arabia, previously recorded from Jeddah, Hofuf, Abu Arish, Jizan (Beish) (GUICHARD 1994).

***Philanthus triangulum* (FABRICIUS 1775)**

Vespa ruspatrix LINNAEUS 1767 - Laurenti Solvii, Holmiae: 951.

Vespa triangulum FABRICIUS 1775 - Syst. ent.: 373.

M a t e r i a l : 1♂, west Jeddah, 2001; 1♂, Obhor, 10.1.2002; 1♂, west Jeddah, 3.10.2002; 1♂, Obhor, 29.4.2002; 2♂♂, south Jeddah, 12.2002.

D i s t r i b u t i o n : West Palearctic Africa, Arabia. In Saudi Arabia, this species had been recorded from Taif and Abha (GUICHARD 1994).

***Philanthus variegatus* SPINOLA 1838**

Philanthus variegatus SPINOLA 1838 - Ann. Soc. Ent. France 7: 484, ♀.

M a t e r i a l : 1♀, Hadasham, 16.3.2002; 2♀♀, north Jeddah, 13.5.2002.

D i s t r i b u t i o n : North Africa, Palestine, Arabia, Central Asia. In Saudi Arabia, previously recorded from Hofuf, Riyadh, Abu Arish, Wadi Majorish (below Taif), Al Hai'r (520m), Fayfa (GUICHARD 1994).

Genus *Philanthinus* de BEAUMONT 1949

***Philanthinus theodori* (BYTINSKI-SALZ 1959)**

Philanthus theodori BYTINSKI-SALZ (in de BEAUMONT and BYTINSKI-SALZ 1959). - Bull. Res. Council Israel 8: 139, ♀, ♂.

D i s t r i b u t i o n : Israel, Saudi Arabia (Riyadh) (GUICHARD 1994).

Genus *Cerceris* LATREILLE 1802-1803

***Cerceris albicincta* KLUG 1845**

Cerceris albicincta KLUG 1845 - Symb. phys. 5: 28, ♂.

M a t e r i a l : a lot of specimens were collected from different localities from Jeddah all around the year.

D i s t r i b u t i o n : North Africa, African Sahel, Palestine, Sudan, Chad, Arabian Peninsula. In Saudi Arabia, this species is one of the commonest species recorded from Riyadh, and Jeddah (de BEAUMONT 1951; GUICHARD 1993).

***Cerceris alboatra* WALKER 1871**

Cerceris alboatra WALKER 1871 - Hym. collected by J.K. Lord in Egypt... London: 27, ♂.

D i s t r i b u t i o n : Egypt, Libya, Israel, Sudan, Arabian Peninsula. In Saudi Arabia, previously recorded from Riyadh and Jeddah (GUICHARD 1993).

***Cerceris albopectoris* EMPEY 1973**

Cerceris albopectoris EMPEY 1973 - J. ent. Soc. sth. Afr. 36: 16, ♂.

D i s t r i b u t i o n : Arabian Peninsula (including Oman, Yemen, Saudi Arabia). In Saudi Arabia, previously recorded from Bahra (near Jeddah) (GUICHARD 1993).

***Cerceris amakosa* BRAUNS 1926**

Cerceris amakosa BRAUNS 1926 - Ann. Transvaal. Mus. 11: 305, ♀, ♂.

D i s t r i b u t i o n : South Africa, Botswana, Ethiopia, Arabian Peninsula. In Saudi Arabia, previously recorded from Abu Arish, Taif, Wadi Majarish (below Taif), Fayfa (GUICHARD 1993).

***Cerceris chromatica* SCHLETTERER 1887**

Cerceris chromatica SCHLETTERER 1887 - Zool. Jahrb. Abt. Syst. 2: 422, ♂.

D i s t r i b u t i o n : Egypt, Algeria, Sahara, Israel, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Bahra (near Jeddah) and Hofuf (GUICHARD 1993).

***Crceris clytia* de BEAUMONT 1959**

Cerceris clytia de BEAUMONT (in de BEAUMONT & BYTINSKI-SALZ 1959) - Bull. Res. Council Israel 8: 116, ♀, ♂.

D i s t r i b u t i o n : Israel, Algeria, Libya, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Ad Diriyah (GUICHARD 1993).

***Cerceris constricta* GUICHARD 1993**

Cerceris constrictus GUICHARD 1993 - Fauna of Saudi Arabia 13: 162, ♀, ♂.

D i s t r i b u t i o n : Saudi Arabia (Wadi Majarish below Taif) (GUICHARD 1993).

***Cerceris ephippium* R. TURNER 1912**

Cerceris ephippium R. TURNER 1912 - Ann. Mag. Nat. Hist. (8) 9: 498, ♀, ♂.

D i s t r i b u t i o n : Pakistan, Saudi Arabia. In Saudi Arabia, this species had been recorded from S. Othman (TURNER 1912).

***Cerceris eryngii* MARQUET 1875**

Cerceris eryngii MARQUET 1875 - Bull. Soc. Hist. nat. Toulouse 9: 205, ♀.

Distribution: France, Spain, Italy, Russia, Ukraine, Turkey, Slovakia, Greece, Bulgaria, Romania, Yugoslavia, Kazakhstan, Uzbekistan, Israel, Iran. In Saudi Arabia previously recorded from Ad Diriyah (GUICHARD 1993).

***Cerceris fischeri* SPINOLA 1839**

Cerceris fischeri SPINOLA 1839 - Ann. Soc. Ent. France 7: 493, ♀, ♂.

Distribution: N Africa, Western Sahara, Israel, Arabian Peninsula. In Saudi Arabia, previously recorded from Riyadh, Abu Arish, Wadi Majarish, Hofuf, Fayfa (GUICHARD 1993).

***Cerceris hausa* ARNOLD 1931**

Cerceris hausa ARNOLD 1931 - Ann. Transvaal. Mus. 14: 174, ♀.

Distribution: Nigeria, Arabian Peninsula. In Saudi Arabia, previously recorded from Abu Arish (GUICHARD 1993).

***Cerceris laterifurcata* EMPEY 1973**

Cerceris laterifurcata EMPEY 1973 - J. ent. Soc. sth. Afr. 36: 13, ♀, ♂.

Distribution: Arabian Peninsula. In Saudi Arabia, this species had been recorded from Fayfa, Wadi Maraba, Wadi Majarish (GUICHARD 1993).

***Cerceris lateriproducta* MOCHI 1938**

Cerceris lateriproducta MOCHI 1938 - Bull. Soc. Fouad 1er Ent. 22: 183, ♀, ♂.

Distribution: Egypt, Eretria, Sudan, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Abu Arish, Wadi Majarish (below Taif) (GUICHARD 1993).

***Cerceris nugax* ARNOLD 1931**

Cerceris nugax ARNOLD 1931 - Ann. Transvaal. Mus. 14: 176, ♂.

Distribution: Nigeria, Mali, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Bahra (near Jeddah) (GUICHARD 1993).

***Cerceris priesneri* MOCHI 1938**

Cerceris pulchella SCHLETTERER 1887 - Zool. Jahrb. Abt. Syst. 2: 391.

Cerceris priesneri MOCHI 1938 - Bull. Soc. Fouad 1er Ent. 22: 179, ♀, ♂.

Distribution: Egypt, Algeria, Spanish Sahara, Arabian Peninsula. In Saudi Arabia, previously recorded from Ad Diriyah, Towki, Riyadh (GUICHARD 1993).

***Cerceris pulchella* KLUG 1845**

Cerceris pulchella KLUG 1845 - Symb. phys. 30, pl. 47, fig. 14, ♂.

Distribution: N Africa, Djibuti, Pakistan, Israel, Western Sahara, Arabian Peninsula. In Saudi Arabia, previously recorded from Hofuf (GUICHARD 1993).

***Cerceris querula* KOHL 1906**

Cerceris querula KOHL 1906 - Denkschr. Akad. Wiss. Wien 71: 210, ♂.

Material: 1♂, north Jeddah, 10.7.2002.

Distribution: Mozambique, Zimbabwe, Arabian Peninsula. In Saudi Arabia, previously recorded from Taif Aqaba (GUICHARD 1993).

***Cerceris rufocincta* GERSTAECKER 1857**

Cerceris rufocincta GERSTAECKER in Peters 1857 - Monatsber. Akad. Wiss. Berlin (1857): 509, ♀.

Distribution: Tropical Africa, Arabia. In Saudi Arabia, previously recorded from Abu Arish, Wadi Majarish, and Taif Aqaba (GUICHARD 1993), Jeddah, in the present work.

***Cerceris sabulosa* (PANZER 1799)**

Philanthus sabulosa PANZER 1799 - Fauna Germaniae 12: 63.

Distribution: Hungary, Spain, Austria, France, Bulgaria, Germany, Italy, Russia, Armenia, Ukraine, Tajikistan, Turkey, Egypt, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Abu Arish, Taif (GUICHARD 1993).

***Cerceris sokotrae* KOHL 1906**

Cerceris sokotrae KOHL 1906 - Denkschr. Akad. Wiss. Wien 71: 207, ♀, ♂.

Distribution: Kenya, Ethiopia, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Abu Arish (GUICHARD 1993).

***Cerceris solitaria* DAHLBOM 1845**

Cerceris solitaria DAHLBOM 1845 - Hym. europ. p. borealis V. 1: 502, ♂.

Material: 2♂♂, Hadasham (120km east Jeddah), 27.7.2002.

Distribution: North Africa, Chad, Sudan, Israel, Arabian Peninsula. It was previously recorded from Arabian peninsula as *Cerceris erythrocephla* DAHLBOM with no specific locality (KOHL 1906). In Saudi Arabia, this species had been recorded from Abu Arish, Wadi Quryat Ag. Sm., Rostaq, 350m (GUICHARD 1993).

***Cerceris songhai* GUICHARD 1993)**

Cerceris songhai GUICHARD 1993 - Fauna of Saudi Arabia 13: 158, ♀, ♂.

Distribution: Mali, Saudi Arabia. In Saudi Arabia, previously recorded from Abu Arish (GUICHARD 1993).

***Cerceris spinipectus* F. SMITH 1856**

Cerceris spinipectus F. SMITH 1856 - Cat. Hym. Ins. Brit. Mus.: 445, ♀, ♂.

Distribution: Turkey, Cyprus, Libya, Iraq, Greece, Israel, Arabian Peninsula, Jordan, Mauritania, Kazakhstan, Turkmenistan, Croatia. In Saudi Arabia, this species had been recorded from Jeddah (de BEAUMONT 1951), Riyadh (de BEAUMONT 1962), Fayfa, Medain Salih (GUICHARD 1993).

***Cerceris spinipectus spinolica* SCHLETTERER 1887**

Cerceris flaviventris SPINOLA 1839 - Ann. Soc. Ent. France 7: 495, ♂.

Cerceris spinipectus spinolica SCHLETTERER 1887 - Zool. Jahrb. Abt. Syst. 2: 480.

Distribution: Egypt, Libya, Saudi Arabia. In Saudi Arabia, this species had been recorded with no specific locality (EMPEY 1973).

***Cerceris straminea* DUFOR 1854**

? *Cerceris waltlii* SPINOLA 1839 - Ann. Soc. Ent. France 7: 496, ♂.

Cerceris straminea DUFOR 1854 - Ann. Soc. Ent. France (Ser. 3) 1: 388, ♀.

Distribution: Algeria, Morocco, Western Sahara, Egypt, Arabian Peninsula, Kazakhstan, Uzbekistan. In Saudi Arabia, this species had been recorded from Al Ha'ir (GUICHARD 1993).

***Cerceris tricolorata* SPINOLA 1838**

Cerceris tricolorata SPINOLA 1838 - Ann. Soc. ent. France 7: 493, ♀.

Material: 1♂, Hadasham (120km, east Jeddah), 10.9.2002.

Distribution: North Africa, Western Sahara, Arabian Peninsula, Chad, Iran, Iraq, Israel, Somalia, Spanish Sahara. In Saudi Arabia, this species had been recorded with no specific locality as *Cerceris vidua* KLUG and as *Cerceris insignis* KLUG (KLUG 1845); it was also recorded from Eastern Arabia (WALKER & PITTAWAY 1987); and from Abu Arish hot springs, Wadi Majarish (below Taif), Fayfa, Riyadh, and Bahra (east Jeddah) (GUICHARD 1993).

***Cerceris vagula* KOHL 1906**

Cerceris vagula KOHL 1906 - Denkschr. Akad. Wiss. Wien 71: 209, ♀.

Material: 1♀, 1♂, Abrug (east Jeddah), 28.1.2002.

Distribution: Arabian Peninsula. In Saudi Arabia, this species had been recorded in Wadi Majarish (below Taif), 800m (GUICHARD 1993).

***Cerceris vittata eurypyga* KOHL 1898**

Cerceris vittata eurypyga KOHL 1898 - Termez. Füzet. 21: 346, ♀, ♂.

Distribution: Algeria, Arabian Peninsula. In Saudi Arabia, this species had been recorded from Bahra (Jeddah), Hofuf, Kharj (GUICHARD 1993).

***Cerceris zebra* GUICHARD 1993 (female)**

This is very likely the female *C. zebra*, which was described based on the male sex and was only recorded from Behla (Oman). The female was not known until collected from Hadasham (120km east Jeddah) in the present study. It was sent to Dr. Michael Ohl to confirm its identification and he concluded in one of his mails " it obviously belongs to the *chromatica* group with produced lateral corners, but it is neither *chromatica* nor *lateriproduca* ". I agree with him in his conclusion since in *chromatica* the abdomen and most of the body is entirely yellow. In *lateriproduca* the abdomen with blackish or ferruginous, while in our specimen the abdomen is black marked with yellow bands. It is characterized by the following:

Antennae ferruginous, with the inner margin of the last 4-5 joints yellowish to orange. Inner margin of eyes densely covered with whitish hairs. Clypeus small, very peculiar, strongly elevated, deeply notched at apex (fig. 1), yellow with black apical margin, densely covered with silvery hairs that greatly obscure its background. Mandibles ferruginous with two black blunt inner teeth (fig. 2); its outer margin densely and coarsely punctured. Palpi orange to ferruginous. Thorax dark-brown to black, with two lateral yellow spots on pronotum. Postscutellum yellow. Dorsal enclosure of propodeum with confused striae posteriorly. Tegulae dark with golden upper part. Wings hyaline with yellow tent and dark tip. All tibiae and tarsi (except hind ones) yellow. Hind tibiae stron-

gly ridged and serrated, provided with short transparent setae (fig. 3). Abdomen densely and coarsely punctured, T₂₋₄ with lateral projections (fig. 4). Posterior margin of T₁₋₅ with broad yellow bands that are cut in the middle in T₁ and T₂, very weak on T₄, T₅ mostly yellow. Pygidium dark brown to ferruginous, oval-shaped with rounded to flattened end, with upwardly curved yellow hairs on lateral margins (fig. 5).

Abdominal sternites ferruginous, with lateral punctures. S₄, S₅ with fine decumbent whitish hairs that increase on S₅. S₆ deeply notched at apex forming two lobes which is not the case in *lateriproducta*.

Material: 1♂, Hadasham (120km east Jeddah), 27.4.2002 (deposited in Dr. Michael Ohl collection)

Distribution: Oman (Behla).

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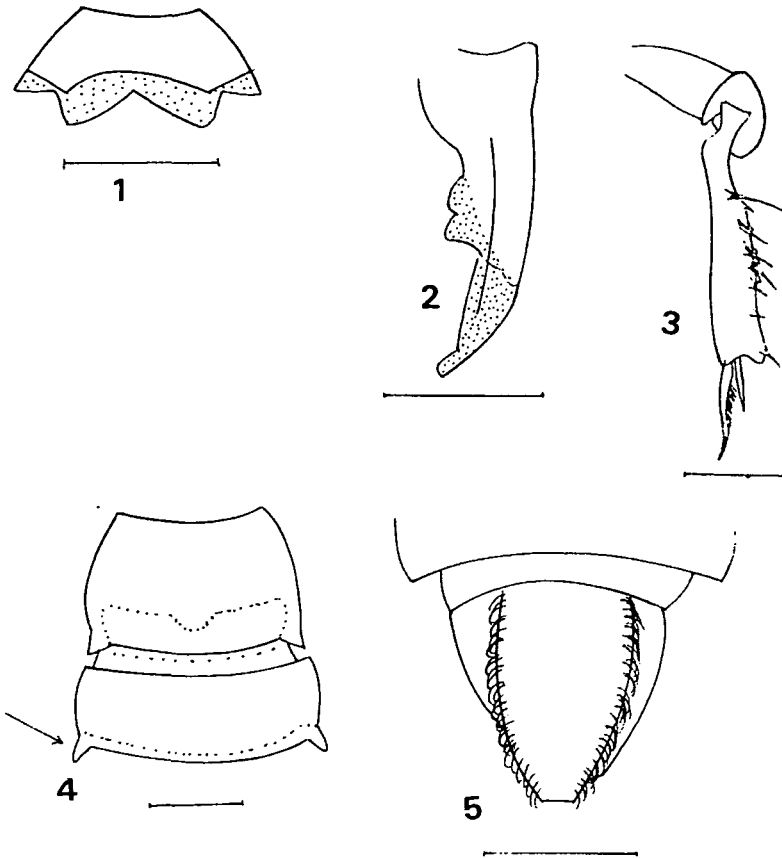
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Figs. 1-5: female *Cerceris zebra* GUICHARD; 1 – clypeus; 2 – mandible; 3 – hind tibia ; 4 – T₂ and T₃ (dorsal aspect); 5 – pygidium. (scale = 0.5mm).

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