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New and additional distribution data of the genus *Acupalpus* LATREILLE 1829 from the Middle East and adjacent areas (Coleoptera, Carabidae, Harpalini, Stenolophina)

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A b s t r a c t : Based on study of 700 additional specimens from the Middle East and adjacent areas the second supplement on the *Acupalpus* fauna of this region is presented. The following new and additional distribution data are provided:

Acupalpus elegans (DEJEAN 1829): first records for Syria; additional records for Egypt, Israel, Turkey and Iran. *A. exiguus* DEJEAN 1829: first record for Turkey. *A. flaviceps* (MOTSCHULSKY 1850): additional records for Afghanistan, Iran and northwestern China. *A. flavicollis* (STURM 1825): additional records for Turkey. *A. interstitialis* REITTER 1884: additional records for Turkey. *A. jaegeri* KATAEV 1996: additional records for Iran and Iraq. *A. luteatus* (DUFTSCHMID 1812): additional records for Turkey and Iran. *A. maculatus* (SCHAUM 1860): first records for Lebanon, Pakistan and India; additional records for Cyprus, Turkey, Israel, Iran and Afghanistan. *A. meridianus* (LINNAEUS 1761): additional records for Iran and Turkey. *A. morulus* REITTER 1884: additional records for Turkey. *A. notatus* MULSANT & REY 1861: additional records for Turkey. *A. paludicola* REITTER 1884: additional records for Turkey and Israel. *A. parvulus* (STURM 1825): first record for Pakistan (Gilgit-Baltistan region); additional records for Turkey, Iran and Afghanistan. *A. schnitteri* JAEGER 1999: additional records for Israel. *A. suturalis* DEJEAN 1829: additional records for Turkey. *A. turcicus* JAEGER 1992: first possible record for Iran; additional records for Turkey.

Key words : Carabidae, Harpalini, Stenolophina, *Acupalpus*, new records, Middle East, Afghanistan, Pakistan, India.

Introduction

During the past 150 years various authors such as SCHAUM (1858), BAUDI DI SELVE (1864), PIOCHARD DE LA BRULERIE (1875), REITTER (1884, 1900), BODEMEYER (1900), APFELBECK (1904), SAHLBERG (1913), BODEMEYER (1927), BODENHEIMER (1932, 1937), JEDLIČKA (1955, 1961, 1962, 1967), MANDL (1967), ALI (1966, 1974), ALFIERI (1976), JEANNE (1996), JAEGER (1987, 1988, 1989), KATAEV (1996), CASALE & VIGNA TAGLIANTI (1999), AUSTIN et. al. (2008) and WRASE (2009) provided records of *Acupalpus* species from the Middle East and Afghanistan. The most comprehensive contribution on the *Acupalpus* fauna of this region was presented by JAEGER (1992) supplemented by JAEGER (1999). Considering the latter papers, 14 taxa of the subgenus *Acupalpus* and 2 of the subgenus *Ancylostria* have so far been recorded from the Middle East, excluding *A. gracilis* BOHEMAN 1848, an Afrotropical species reported from

Yemen. Due to biogeographical and ecological reasons it is not surprising that within the Middle East the number of species decreases markedly from north to south as well as from west to east. In the latter direction the number of species diminishes from 13 reported from Turkey, to 7 from Iran and only 4 from Afghanistan. No species of the subgenera *Acupalpus* and *Ancylostria* has been so far recorded from the adjacent area of Pakistan, though it is suspected that at least some of the four species known from Afghanistan also occur in western or northern Pakistan west of the Indus valley.

New and older collections from the Middle East and adjacent areas that became available since JAEGER (1999) comprise about 700 additional *Acupalpus* specimens, including various interesting finds, amongst them new province records, and first country records for Turkey, Lebanon, Syria, Iran, Pakistan and India (Jammu and Kashmir). The latter records confirmed the aforementioned suggestion that some species of the subgenus *Acupalpus* occur in the southern West Palaearctic east of Iran and Afghanistan.

The new and additional records from the Middle East and adjacent areas are presented in the following contribution.

Material and Methods

The examined material is deposited in the following public institutions and private collections

HMIM	Hayek Mirzayans Insect Museum, Tehran, Iran, Mrs. S. Serrì.
MCSNG	Museo Civico di Storia Naturale "Giacomo Doria", Genoa, Italy, Dr. R. Poggi.
MHNG	Museum d'Histoire Naturelle, Geneva, Switzerland, Dr. I. Löbl.
MNHUB.....	Museum für Naturkunde Berlin, Germany, Dr. M. Uhlig.
MMB.....	Moravian Museum Brno, Czech Republic, P. Baňaf.
NHMB	Naturhistorisches Museum Basel, Switzerland, Dr. M. Brancucci.
NHMW	Naturhistorisches Museum Wien, Austria, Dr. H. Schönmann.
NME	Naturkundemuseum Erfurt, Germany, Dipl.-Biol. M. Hartmann.
NMW	National Museum Wales, Cardiff, Great Britain, Dr. B. Levey.
NMP.....	Narodny Muzeum v Praze, Czech Republic, Dr. J. Jelinek.
SMNS.....	Staatliches Museum für Naturkunde, Stuttgart, Germany, Dr. W. Schawaller.
cAPF	Coll. W. Apfel, Eisenach, Germany.
cBUL.....	Coll. P. Bulirsch, Prague, Czech Republic.
cFEL	Coll. R. Felix, Berkel-Enschot, The Netherlands.
cFEN	Coll. R. Fencel, Plzen, Czech Republic.
cEGG	Coll. M. Egger, Wattens, Austria.
cFRE	Coll. D. Frenzel, Sonneberg, Germany.
cHEI.....	Coll. W. Heinz, Schwanfeld, Germany.
cJAE.....	Coll. B. Jaeger, Berlin, Germany.
cJEA.....	Coll. Cl. Jeanne, Langon, France.
cKOP.....	Coll. T. Kopecký, Hradec Králové, Czech Republic.
cMAR.....	Coll. W. Marggi, Thun, Switzerland.
cMUL.....	Coll. J. Mulwijk, De Bilt, The Netherlands.

cPÜT	Coll. A. Pütz, Eisenhüttenstadt, Germany.
cROH	Coll. D. Rohwedder, Bonn, Germany.
cSCHM	Coll. J. Schmidt, Admannshagen, Germany.
cSCHN	Coll. P.H. Schnitter, Halle, Germany.
cSKA	Coll. A. Skale, Hof, Germany.
cSKO	Coll. V. Skoupý, Kamenné Žehrovice, Czech Republic.
cWEI	Coll. J. Weipert, Plaue, Germany.
cWRA	Coll. D.W. Wrase, Berlin, Germany.

Collecting data of examined material are presented according to the following form: "locality, month, year, collector(s) (number of specimens – deposition)".

The general distribution of species, if not confined to the Middle East, is usually given according to the Palaearctic catalogue (JAEGER & KATAEV 2003) and material revised by the author. References for the Middle East (including Afghanistan) distribution are restricted to those providing detailed primary records. Checklists or other sources including exclusively country records are cited only when no detailed records have been published up to the present.

Results

Acupalpus (Acupalpus) elegans (DEJEAN 1829)

General distribution: Canary Islands, Mediterranean region, West, Central and East Europe, Transcaucasia, Middle East, Middle Asia and West Siberia.

Distribution in Middle East: So far recorded from Turkey (JAEGER 1992: 224, 1999: 958), Cyprus (JAEGER 1999: 958, AUSTIN et al. 2008: 68, 69) Lebanon (SCHAUM 1858: 274, JAEGER 1992: 224), Israel (BODENHEIMER 1932: 53, JAEGER 1999: 958), Jordan (BODENHEIMER 1932: 53), Egypt (ALFIERI 1976: 22, JAEGER 1999: 958), Iraq (JAEGER 1992: 224), Iran (JAEGER 1992: 224, 1999: 958) and Afghanistan (JEDLIČKA 1955: 191, JAEGER 1999: 958).

Since JAEGER (1999) the following additional material, including first records for Syria, for the Turkish province Samsun and the Iranian provinces Tehran and Yasd, has been examined.

Examined material:

Egypt: Cairo: Dashshur ca. 23 km S Cairo, 29°40'00"N, 31°14'30"E, light trap, V. 1996, Ullrich (1 – cWRA); W Desert Oasis Bahariya, IV. 1996, Ullrich (1 – cWRA).

Israel: Haifa District: 22 km S Haifa, Strand, V. 1996, Hauser (7 – SMNS, cJAE); coastal area 3 km W Zikhron Ya'akov (edges of fish pond brackish water), V. 2006, Wrase (13 – cWRA, cJAE).

Syria: Aleppo: Sfere: Jabbul-Salzsee, S-Ufer b. Aboujrein, IV. 1996, Sprick (1 – cWRA). – Deir-ez-Zor: Deir ez-Zor, Dura Europos, 235 m, 34°45'N / 40°44'E, VI. 1998, Sobotnik (1 – cWRA).

Turkey: Antalya: Okurcalar (at light), Schödl (1 – NHMW). – Samsun: 15 km NW Bafra, Karaboğaz Gölü, swamp, 41°40'27"N, 35°48'49"E, III. 2009, Wunderle (4 – MNHUB). – Sivas: Koyulhisar, VI. 1992, Skoupý (2 – cSKO).

Iran: Fars: Pass road Estahban-lj, 2030 m, N 29°05'12" E 054°10'30", IV. 2006, Frisch & Serri (2 – MNHUB); Siraz env. Daryace-ye Maharlu, V. 1999, Klima (1 – cFEN). – Gilan: 20 km W Bandar Anzali, VI. 2009, Skoupý (1 – cSKO). – Mazandaran: Alamdeh, VI. 1974, Bernhauer (1 – CHEI);

Behshar Jangale Duk, 480 m, VI. 1977, Pazuki & Mortazawiha (1 – HMIM). – Tehran: Tehran, Evin, VI. 1975, L.T. (1 – HMIM). – Yasd: 60 km NNO Yasd: Kharanaq, 1700 m, N 32°20'48" E 054°40'21", V. 2010, Frisch & Serri (2 – MNHUB).

***Acupalpus (Acupalpus) exiguus* DEJEAN 1829**

General distribution: Kazhakstan, West Siberia, Transcaucasia, Europe (from central and southern Russia in the east to France in the west, and from southern Fennoscandia in the north to Italy and the Balkan Peninsula in the south and southeast).

The species has not yet been recorded from the Middle East though an occurrence in Turkey and Iran could be expected due to known records from Azerbaijan (Lenkoran), Georgia and the Balkan Peninsula. The species is for the first time recorded for Turkey.

Examined material:

Turkey: Erzincan: Refahiye E, Sakaltutan Geçidi W, Stausee Schlammufer, 1936 m, N 39°52.682' E 39°01.705, VIII. 2002, Schnitter (1 – cSCHN).

***Acupalpus (Acupalpus) flaviceps* (MOTSCHULSKY 1850)**

General distribution: According to KATAEV (1996: 128) the species occurs from Mongolia across northwest China (Inner Mongolia and Xinjiang), Middle Asia, to southern Russia (Astrakhan Province) and Middle East.

The record of the species from East Nepal (JEDLIČKA & CHÛJÔ 1966: 537) is based, without doubt, on a misidentification.

Distribution in Middle East: So far recorded from Afghanistan (JEDLIČKA 1955: 191, MANDL 1967: 463, JEDLIČKA 1967: 73, KATAEV 1996: 128) and Iran (JAEGER 1992: 224 partim, 1999: 958, KATAEV 1996: 128). The record from SW Iran, Khuzestan prov. (JEDLIČKA 1961: 4) refers most likely to *A. jaegeri* KATAEV.

Since JAEGER (1999) the following material, including one additional record from Iran and confirmed former records from Afghanistan, has been examined from the Middle East, as well as from northwestern China from which only few localities were known.

Examined material:

China: Nei Mongol: Bayan Gol, V. 1996, Kucera (5 – cBUL, cWRA). – Xinjiang: Taklamakan, Tarim-Mittellauf, 910 m, 84°27'E 41°14'N, IX. 2004, Schultz (2 – cSCHM).

Afghanistan: Bala Murghab, 470 m, Prov. Herat, VI. 1964, Jakes (1 – NMP); Kabul, Klapperich (3 – MNHUB); Kabul and Kabul env., 1740 m, V. and IX. 1952, Klapperich (13 – NMP); Kabul W, VIII. 1963, Kasy & Vartian (6 – cWRA); Khurd-Kabul, Kabul W, VIII. 1963, Kasy & Vartian (7 – cWRA); Khurd-Kabul, SO Kabul, 1400 m and 1900 m, IV, VI, and VII. 1965, Kasy & Vartian (169 – NHMW, NMP, cJAE); Churd-Kabul, 2000 m, III. 1963 (3 – MMB).

Iran: Sistan and Baluchestan: Hirmand, IV. 1971, Radjabi (5 – HMIM).

***Acupalpus (Acupalpus) flavicollis* (STURM 1825)**

General distribution: Kazhakstan, West Siberia, Turkey, Europe (from the Ural in the east to France and northern Spain in the west, and from southern Fennoscandia in the north to Italy and the Balkan Peninsula in the south and southeast).

Distribution in Middle East: So far only known from few localities in northwestern Turkey (BODEMEYER 1900: 105, APFELBECK 1904: 205, JAEGER 1992: 225, 1999: 958). One additional record from the same region as well as one new one from northeastern Turkey can be added.

Examined material:

Turkey: Istanbul: Ömerli – Sile, V. 1987, Schönmann & Schillhammer (1 – NHMW). – Rize: 25 km S Pazar, 670 m, 40°57'49"N, 40°51'57"E (moist mixed forest), VII. 2008, Schülke (1 – cWRA).

***Acupalpus (Ancylostria) interstitialis* REITTER 1884**

General distribution: Transcaucasia, Turkey, Europe (from southern Russia in the east to France in the west, and from Estonia and Central Europe in the north to Italy and the Balkan Peninsula in the south and southeast).

Distribution in Middle East: So far only known from Turkey (BODEMEYER 1900: 105, JAEGER 1992: 225, 1999: 959).

The species can be recorded from three additional Turkish provinces.

Examined material:

Turkey: Ankara: 12 km N Ankara, 1200 m, IV. 1973, Heinz (1 – cHEI). – Corum: Bogazkale, IV. 1999, Orszulik (1 – cWRA). – Kastamonu: ca. 65 km W Kastamonu, 20 km W Eflani, 1090 m, 41°28'30"N, 33°12'54"E, III. 2010, Assing (1 – MNHUB).

***Acupalpus (Acupalpus) jaegeri* KATAEV 1996**

General distribution: Irak and Iran west of the Zagros Mountains.

In addition to former records from Iran and Iraq (KATAEV 1996: 127, JAEGER 1999: 959) the following specimens have been studied.

Examined material:

Iran: Bushehr: Bandar-e Ganave, V. 1999, Orszulik (2 – cWRA). – Khuzestan: 40 km E Abadan, III. 2007, Felix (1 – cFEL); Ahvaz, 2001, Afshari (1 – cMUL).

Iraq: "Mesopotamia, Assur und Mossul" (1 – MNHUB).

***Acupalpus (Acupalpus) luteatus* (DUFTSCHMID 1812)**

General distribution: Mediterranean Region, West, Central and East Europe, Middle East, Transcaucasia, Middle Asia.

Distribution in Middle East: So far reported from Israel (BODENHEIMER 1932: 53), Turkey (APFELBECK 1904: 207, JAEGER 1992: 225, 1999: 959) and Iran (MANDL 1967: 463, JAEGER 1992: 225, 1999: 959).

The following additional material, including first records for the Turkish provinces Elâziğ, Kayseri and Muğla, has been examined.

Examined material:

Iran: Gilan: Rudbar, VI. 2009, Skoupý (12 – cSKO, cJAE).

Turkey: Elâziğ: Elâziğ–Ergani, Hazara-See, Sumpf, V. 1966, Türkei-Expedition Naturhistorisches Museum Wien (17 – NHMW, cJAE). – Kayseri: 4 km SE Dörtüol, 1075 m, 38°28'N 35°11'E, VI. 2005, Hajdaj (4 – cWRA). – Konya: Bozkiir, Yalihuüyük, V. 1968, Nodmar (1 – cJEA). – Muğla: SE Köyceğiz, 10 m, 36°56'50"N, 28°43'56"E, flood-plain wood, III. 2002, Wunderle (1 – cWRA).

***Acupalpus (Acupalpus) maculatus* (SCHAUM 1960)**

General distribution: Canary Islands, Mediterranean Region, West, Central and East Europe, Transcaucasia, Middle East, Middle Asia.

Distribution in Middle East: So far recorded from Cyprus (JAEGER

1999: 960, AUSTIN et al. 2008: 68, 69), Turkey (JAEGER 1992: 225, 1999: 960), Syria (JAEGER 1992: 225), Jordan (JAEGER 1992: 225), Israel (BODENHEIMER 1932: 53, JAEGER 1992: 225, 1999: 960), Iran (JAEGER 1992: 225, 1999: 960) and Afghanistan (JEDLIČKA 1955: 191, JAEGER 1999: 960).

The following new material, including first records for Lebanon, Pakistan, India, and for the Iranian province Kerman, and for the Turkish provinces Çanakkale, Elâzığ, Erzincan, Kars, Samsun and Uşak, has been examined. The finds from northwest India (Jammu and Kashmir) represent the most eastern records of *A. maculatus* in the southern West Palaearctic.

Examined material:

C y p r u s : Ezousa - Fluß Ufer, bei Kourdaka, IV. 2004, Apfel (1 – cAPF).

T u r k e y : Adana: Adana-Balcali, VIII. 1980, Kasap (1 – MNHUB); Karatas, 50 km S Adana, 36°33'27"N, 35°20'15"E, V. 2002, Skale (1 – cSKA). – Antalya: Beldibi p. Kemer, VII. 1998, Bulirsch (1 – cJAE); Göynük p. Kemer, Bey Dagl., 50-500 m, VII. 1998, Bulirsch (1 – cJAE); Sucati-River bei Asagigökdere, 380 m, 37°32'+30°46', V. 2006, Marggi (4 – cMAR, cJAE). – Aydin: Milet, Menderes Delta, V. 1991, Schönmann & Schillhammer (1 – NHMW). – Çanakkale: N Ezine, Sarmisaki Fluß, V. 1991, Schönmann & Schillhammer (1 – NHMW). – Elâzığ: Elazığ – Ergani, V. 1966, Türkei-Expedition Naturhistorisches Museum Wien (6 – NHMW). – Erzincan: Refahiye E, Sakaltutan Geçidi W, Stausee Schlammufer 1936 m, N 39°52.682' E 39°01.705', VIII. 2002, Schnitter (4 – cSCHN). – Erzurum: N İkizdere, V. 1989, Schönmann & Schillhammer (1 – NHMW). – Kars: Asagi Fluß, E Tuzluca, VI. 1989, Schönmann & Schillhammer (1 – NHMW). – Konya: Bozkir, Yalihuyük, V. 1998, Nodmar (1 – cJEA). – Muğla: Köyceğiz Gölü, 10 m, 36°55'19"N, 28°42'14"E, flood debris sifted, III. 2002, Wunderle (5 – MNHUB). – Samsun: 15 km NW Bafra, Karaboğaz Gölü, beach debris, 41°40'49"N 35°48'16"E, III. 2009, Assing (21 – MNHUB); Carsamba, V. 1989, Jäch (1 – NHMW). – Sivas: Tödürge Gölü, Zara W, Salzpfannen, Uferzone, 1337 m, N 39°51.924' E 37°37.380', Schnitter & Staven (5 – cSCHN). – Uşak: 30 km W Uşak, V. 2002, Skoupý (1 – cSKO).

L e b a n o n : Bekaa: Ammiq, Reserved Area, Feuchtgebiet, 870 m, 33°43'42"N, 35°47'09"E, V. 2006, Frenzel & Weipert (15 – cWEIP, cFRE, cJAE, NME).

I s r a e l : Central District: Breikhat Ya'ar, N Tel Aviv, 11 m (wetland), III. 2008, Wrase (1 – cWRA); Ga'ash, S Netanya (winter pool, Eleocharis), III. 2008, Wrase (4 – cWRA); Netanya, Breikhat Dora Res. (wetland), III. 2008, Wrase (4 – cWRA). – Haifa District: Carmel Ridge, Dalya/Gared, III. 1995, Sama (33 – SMNS, cJAE); coastal area 3 km W Zikhron Ya'akov (edges of fish pond brackish water), V. 2006, Wrase (22 – cWRA, cJAE); Ein Afek Reserve, W Kariat Motksin (Haifa) (loamy foreshore of brackish ponds), III. 2008, Wrase (1 – cWRA). – North District: Upper Galilee, Ha Khula Valley, Ma'agar Einan lake, 73 m, 33°05.137'N 035°34.730'E (shore gravel, sandy/loamy soil), V. 2006, Wrase (1 – cWRA); Upper Galilee, N. shore of sea of Galilee -200 m, Tamarisc floodplain forest, betw. Kfar Nakhum (Capernaum) and mouth of Jordan river, III/IV. 2008, Wrase (3 – cWRA). – Golan Hights: Bental Reservoir, W Merom Golan, ca. 1000 m, (stony wetland near shore), VI. 2006, Wrase (5 – cWRA).

I r a n : Azabavian-e Gharbi: 18 km SE Quarah Ziya'oddin (Aq River), 960 m, N 38°51'03" E 045°13'31", VIII. 2008, Frisch & Serri (1 – MNHUB). – Gilan: 20 km W Bandar Anzali, VI. 2009, Skoupý (21 – cSKO, cJAE); Asalem, VI. 2009, Skoupý (7 – cSKO, cJAE); Espeyli, 2000 m, VI. 2009, Skoupý (1 – cSKO); Rudbar, VI. 2009, Skoupý (19 – cSKO, cJAE). – Golestan: S Gorgan, 12 km S Nahar Khoran, Ziarat, 1200 m, N 36°40'52" E 054°27'54", VI. 2006, Frisch & Serri (1 – MNHUB). – Kerman: Kerman, rivier 5 km Z Khabr, N 28°50'35.6"/E 56°14'54.8", III. 2007, Felix (1 – cFEL). – Mazandaran: 40 km S Tavar, 660 m, meadow beside road, 35.25.12N 51.16.53E, V. 2010, Frenzel (1 – cFRE); Kalardasht: Rudbarak, 1790-1950 m, N 36°26'43" E 051°03'48", VII. 2005, Frisch & Serri (1 – MNHUB); Now Shahr, 36°36'17"N, 51°38'23"E, VI. 2008, Frenzel (1 – cFRE); Tonekabon: Dohezar, 400 m, N 36°40'29" E 050°49'40", VII. 2005, Frisch & Serri (1 – MNHUB); Alamdeh, VI. 1974, Bernhauer (1 – cHEL); Sari, I. 1875, Kerim (1 – MCSNG). – Ostan-e Ardabil: 20 km S Astara, 3816N, 4830E, 2 m, VI. 2000, Hajdaj (1 – cWRA).

A f g h a n i s t a n : Bala Murghab, 470 m, (23), VI. 1964, Jakeš (1 atypical female – MMB).

P a k i s t a n : Khyber Pakhtunkhwa Province (North-West Frontier Province): Kâgân-Tal, Naran, 2400-2700 m, VII. 1981, Heinz (5 – MNHUB, cJAE); Hazara, Kaghan, 2150 m, VI. 1983, Besuchet & Löbl (2 – MHNG, cJAE); Swat, Madyan, 1400 m, V. 1983, Besuchet & Löbl (1 – MHNG); : Swat, s/Utrat, 2500-2600 m, V. 1983, Besuchet & Löbl (1 – MHNG).

I n d i a : Jammu and Kashmir: Srinagar, VI. 1984, Levey (2 – NMW); Srinagar, 1600 m, VI. 1976, Wittmer (1 – NHMB).

It should be noted that the specimens from the Swat and Khagan Valley in northern Pakistan (see above) differ from typical members of *A. maculatus*. The Pakistani specimens at a first glance remind one of *Acupalpus brunnipes*, because five of them are uniformly blackish to dark blackish brown, having only the mouthparts, pronotal and elytral margins narrowly, and first elytral interval dark reddish brown. The remaining specimens have at least the outer elytral intervals vaguely lighter, and in one specimen indications of a small dark brown spot in front of the base of each elytron. In typical *maculatus* specimens the pronotal margins are more widely reddish yellow and the elytra are reddish yellow with an \pm expanded dark central macula, which typically extends along intervals 5-6 to elytral base, so that a distinct oval reddish or yellowish patch remain at both sides of suture. Rarely the pronotum is almost black, and very rarely the elytra are completely dark and immaculate in single specimens occurring within populations of typically coloured specimens. In addition to these colour differences the eyes are somewhat less prominent; the pronotal basal impressions are more distinctly punctate; the microsculpture at apical half of the head is more isodiametric, instead of more transversely stretched, and on pronotum and elytral intervals the meshes are generally somewhat coarser and more distinct. However, in single specimens of the Pakistani populations as well as in those from other places the mentioned differences are less clear.

A comparison of the external shape of the median lobe of aedeagus and its internal sac revealed no difference between the Pakistani specimens and those from other areas. The population from northern Pakistan is here treated as an intraspecific geographical form without formal taxonomic rank.

Acupalpus (Acupalpus) meridianus (LINNAEUS 1761)

General distribution: Middle and West Siberia, Kyrgyzstan, Kazakhstan, Transcaucasia, Middle East, Europe (from central Russia in the east to France in the west and northern Spain in the southwest, and from southern Fennoscandia in the north to Italy and the Balkan Peninsula in the south and southeast).

Distribution in Middle East: So far recorded from Iran (BODEMEYER 1927: 39) and Turkey (BODEMEYER 1900: 105, JEDLIČKA 1962: 66, JAEGER 1992: 226, 1999: 961).

The following additional material, including first records for the Turkish provinces Antalya, Kars, Niğde, Ordu and Tokat has been examined.

Examined material:

Turkey: Ankara: ca. 20 km N Beypazari, 1540 m, 40°17'40"N, 31°59'07", wetland, under stones, III. 2010, Assing (2 – MNHUB); 10 km S Güven, Sarayköy env., Egrekaya Barajı, VII. 2005, Hajdaj (1 – cWRA). - Antalya: Mt. Beydaglari, 1650-1900 m, Saklikent, VI. 1994, Pütz (2 – cPÜT). - Kars: Cildir Gölü, VI. 1989, Schönmann & Schillhammer (1 – NHMW); Cildir Gölü (1950 m), Dogruyol env., VI. 1998, Vonička (1 – cWRA). - Kastamonu: 45 km NW Kastamonu, 1090 m, 41°42'05"N, 33°28'17", calcareous slope, III. 2010, Assing (1 – MNHUB). - Niğde:

Aladaği 2700 m, W of Pinarbasi, N 37°53 E 35°11, V. 2007, Marggi (20 – cMAR, cJAE). – Ordu: Koyulhisar, V. 1989, Schönmann & Schillhammer (1 – NHMW). – Tokat: 31 km ENE Tokat, Almus, 810 m, 40°23'N, 36°55'E (shore of reservoir), VII. 2008, Schülke (4 – cWRA).

I r a n : Nord Persia, 1862, Doria (1 – MCSNG).

***Acupalpus (Ancylostria) morulus* REITTER 1884**

General distribution: Iraq (WRASE 2009: 919), Israel (REITTER 1884: 75, JAEGER 1987: 120, JAEGER 1992: 226, WRASE 2009: 919), Syria (JAEGER 1992: 226), Lebanon (SAHLBERG 1913: 31, JAEGER 1992: 226), Turkey (REITTER 1900: 136, JAEGER 1987: 120, JAEGER 1992: 226).

The following additional material from Turkey has been examined.

T ü r k e i : Adana: Pozanti env., V. 1993, Kratzky (1 – cKOP). – Icel: Namrun b. Tarsus, Petrovitz & Ressler (1 – NHMW).

***Acupalpus (Acupalpus) notatus* MULSANT & REY 1861**

General distribution: Madeira, Canary Islands, Mediterranean region, Crimea, southern Russia and "Caucasus".

Distribution in Middle East: So far reliable records are only known from Turkey (JAEGER 1988: 22, 1992: 226, 1999: 961).

JEDLIČKA (1967: 73) reported the species also from Bala Murghab in north Afghanistan. This record has been omitted in my former contributions on the Middle East (JAEGER 1992:226, 1999: 961) as well as in the Palaearctic Catalogue (JAEGER & KATAEV 2003: 398). The single specimen examined by me most likely represents an atypical coloured female of *A. maculatus*.

The following additional material from Turkey, including first records for the provinces Kastamonu, Muğla and Samsun, has been examined.

Examined material:

T u r k e y : Antalya: Aslanbucak, VI. 1997, Orszulik (2 – cWRA); 30 km E Antalya, 5 km S Serik, Belek, Hotel Riverside, LF, V. 2002, Skale (1 – cSKA); Manavgat, lux, VI. 1996, Rohwedder (1 – cROH); Perge, VI. 1992, Kadlec (1 – cWRA). – Aydin: Yenice, Nazilli p., VII. 1993, Resl (1 – cWRA). – Izmir: S Sahlili, Boz Dag, V. 1991, Schönmann & Schillhammer (1 – NHMW). – Kastamonu: 3 km W Helaldi, Tümpel, V. 1989, Schönmann & Schillhammer (3 – NHMW, cJAE). – Muğla: 26 km W Köyceğiz, SE Mugla, V. 1991, Schönmann & Schillhammer (3 – NHMW), Marmaris, VIII. 1982, Link (1 – cWRA). – Samsun: 15 km NW Bafra, Karaboğaz Gölü, beach debris, 41°40'49"N 35°48'16"E, III. 2009, Assing (5 – MNHUB).

***Acupalpus (Acupalpus) paludicola* REITTER 1884**

General distribution: Italy, Balkan Peninsula, Middle East, Transcaucasia.

Distribution in Middle East: So far recorded from Israel (REITTER 1884: 75, JAEGER 1989: 147, JAEGER 1992: 226) and Turkey (APFELBECK 1904: 205, SAHLBERG 1913: 31, JAEGER 1989: 147, 1992: 226, 1999: 961). One additional record from Syria, Sanamein [= As Sanamayn] (SAHLBERG 1913: 31) is doubtful because of possible confusion with *A. turcicus* JAEGER and *A. schnitteri* JAEGER.

The following additional material from Israel and Turkey, including first records for the Turkish provinces Ankara and Sinop, have been examined.

Examined material:

Turkey: Adana: Nur Daglari, Fevzipasa env., Nurdagi Gec., 1400 m, V. 2005, Orsulik (3 – cWRA). - Ankara: ca. 20 km N Beypazari, 1540 m, 40°17'40"N, 31°59'07", wetland, under stones, III. 2010, Assing (1 – MNHUB). - Samsun: 15 km NW Bafra, Karaboğaz Gölü, swamp, 41°40'27"N 35°48'49"E, III. 2009, Assing (5 – MNHUB). - Sinop: 15 km SW Sinop, S Kiliçli, 41°57'02"N, 35°02'06"E, 80 m, grassy road margin, IV. 2009, Assing (1 – MNHUB).

Israel: Haifa District: Carmel Ridge, Dalya/Gared, III. 1995, Sama (1 – SMNS).

***Acupalpus (Acupalpus) parvulus* (STURM 1825)**

General distribution: East and West Siberia, Middle Asia, Middle East, Transcaucasia, Europe (from central Russia in the east to France and northern Iberian Peninsula in the west and southwest, and from Fennoscandia in the north to Italy and the Balkan Peninsula in the south and southeast).

Distribution in Middle East: Reliable records were so far known from Turkey (JAEGER 1992: 226, JAEGER 1999: 962), Iran (JAEGER 1999: 962) and Afghanistan (JAEGER 1999: 962).

The records of *A. dorsalis* (= *A. parvulus*) from Afghanistan, Kabul and Kandahar (JEDLIČKA 1955: 191) refers to *A. maculatus* (SCHAUM) (specimens from Kandahar) and *A. flaviceps* (specimens from Kabul), according to revised specimens collected by Klapperich at this localities. The records from Afghanistan, "Khurd-Kabul" (MANDL 1967: 463) respectively "Churd-Kabul" (JEDLIČKA 1967: 73) refer to *A. flaviceps*, according to revised specimens. Another record of *A. dorsalis* from Afghanistan, Kunduz (JEDLIČKA 1967: 73) is based on a atypical female which can not be assigned with certainty to *A. parvulus* or *A. maculatus*. Other collections from the same locality may show whether *A. parvulus* occur there.

The following additional material from the Middle East, including first records for the Turkish provinces Bitlis, Erzincan, Erzurum, Hakkâri and Samsun, and for the Iranian provinces Chahar-Mahal Bakhtiari, Esfahan, Kerman, Khorasan, Lorestan and Mazandaran, has been examined. Other collections from the Gilgit-Baltistan region in northeastern Pakistan show that the species occurs probably also farther east of Iran and Afghanistan. However, this female record from Pakistan needs verification by males from the same area.

Examined material:

Turkey: Ankara: Tuz Gölü, S Ankara, V. 1987, Schönmann & Schillhammer (1 – NHMW). - Bitlis: Nasik Gölü, Van Gölü N, Ovaskisla N, Uferzone (Schotter), 1890 m, N 38°50.492' E 42°19.950, VIII. 2002, Schnitter & Staven (2 – cSCHN). - Erzincan: Refahiye E, Sakaltutan Geçidi W, Stausee Schlammufer, 1936 m, N 39°52.682' E 39°01.705, VIII. 2002, Schnitter (4 – cSCHN, cJAE). - Erzurum: Soylemez, 50 km SE Erzurum, VI. 1999, Hajdaj (1 – cHAJ). - Hakkâri: Sat-dag: Tal v. Oramar, 1600-2700 m, VII. 1974, Heinz (1 – cHEI) - Samsun: 15 km NW Bafra, Karaboğaz Gölü, beach debris, 41°40'49"N 35°48'16"E, III. 2009, Assing (1 – MNHUB).

Iran: Chahar-Mahal and Bakhtiari: 10 km E Naghan, N32°00'16.0"/E50°47'51.6", IV 2007, Felix (2 – cFEL). - Esfahan: 15 km NNO Semirom, 2650 m (Mt. Aljud), N 31°32'09" E 051°37'23", V. 2007, Frisch & Serri (1 – MNHUB); 40 km SW Semirom, 2080m, N 31°14'44" E 051°24'09", V. 2007, Frisch & Serri (1 – MNHUB). - Fars: Dasht Arjan, VI. 1969, Pretzmann & Bilek (1 – NHMW); Semirom-Abadeh rd: 22 km NO Khosrow-Shirin, 2480 m, N 30°58'30" E 052°06'45", V. 2007, Frisch & Serri (2 – MNHUB). - Kerman: Baft Dareh-Pahn, 1750 m, V. 1977, Saf., Paz., Abai (1 – HMIM); Bardsir-Baft road: Qal'eh Askar, 2750 m, N 29°30'17" E 056°37'51" + N 29°30'18" E 056°37'47", V. 2007, Frisch & Serri (9 – MNHUB); Bardsir-Sirjan road: 45 km SW Bardsir, 2540 m, N 29°51'15" E 056°06'24", V. 2007, Frisch & Serri (4 – MNHUB). - Khorasan:

Ghouchan to Shiravan Rd., 24 km S Faruoj, Garmab, 1681 m, N 37°03'16.6" E 58°06'34.1", VI. 2006, Serri & Frisch (1 – MNHUB) - Lorestan: S of Fereydun Shar Farsesh, 2700 m, N 33°07'57" E 049°50'54", VI. 2004, Frisch (1 – MNHUB). - Mazandaran: W Polour, 2400 m, Demavend (N), VI. 1998, Heinz (1 – cHEI).

A f g h a n i s t a n : Badakshan, 55 km E Talogan, Astana Tapa 1600m, 36°43'N / 69°50'E, VI. 2009, Reuter (2 – cWRA); Panjir valley, Parian env., ca. 2000m, VII. 2009, Reuter (1 female with unsure identification – cWRA).

P a k i s t a n : Gilgit-Baltistan: Karakorum Mts., Skardu City, 2200 m, IX. 2001, Slachta (1 – cWRA).

Acupalpus (Acupalpus) parvulus (STURM 1825) / *maculatus* (SCHAUM 1960)

The following records from Iran, Turkey and Afghanistan are based on females. According to present knowledge a reliable identification of atypical female specimens of *A. parvulus* (STURM) or *A. maculatus* (SCHAUM) is impossible due to the overlapping great variability of both species in colour and various other external characters. Thus, males or typical specimens from the same localities are necessary to refer the records to one of the mentioned species.

Examined material:

I r a n : Azabayian-e Gharbi: 20 km W Salmas: 10 km W Kuzeh Rash, 2100 m, N 38°11'17" E 044°31'24", VIII. 2008, Frisch & Serri (1 – MNHUB). - Fars: Margoon, 2040 m, N 30°31'35" E 051°54'47", VII. 2004, Frisch (1 – MNHUB) - Hamadan: Hamadan, 1862, Doria (1 – MCSNG). - Kerman: Kerman-Kuhpaye: Darbasiab (Banan Mts.), 2470 m, N 30°11'09" E 057°09'47", V. 2010, Frisch & Serri (2 – MNHUB). - Kordestan: Sanandaj - Divandarreh road, 21 km S Divandarreh, 1850 m, N 35°45'43" E 047°04'43", IX. 2008, Frisch & Serri (1 – MNHUB).

T u r k e y : Adana: Toprakale bei Osmaniye, IV. 1966, Türkei-Exped. Naturhist. Mus. Wien (1 – NHMW). - Antalya: Fethiye, Yaniklar, VI. 1992, Egger (1 – cEGG). - Bitlis: südl. Tatvan, 1700-2000 m, VI. 1971, Schubert (1 – NHMW). - Erzincan: Refahiye E, Sakaltutan Geçidi W, Stausee Schlammufer, 1936 m, N 39°52.682' E 39°01.705', VIII. 2002, Schnitter (2 – cSCHN). - Hakkâri: Yüksekova, VI. 1987, Jäch (1 – NHMW). - Muğla: 26 km W Köyceğiz, SE Muğla, V. 1991, Schönmann & Schillhammer (1 – NHMW). - Sivas: Tödürge Gölü, Zara W, Salzpfannen, Uferzone, 1337 m, N 39°51.924' E 37°37.380', Schnitter & Staven (2 – cSCHN).

A f g h a n i s t a n : Prov. Kataghan, Kunduz, 400 m, (43), V. 1966, Šimek (1 – MMB).

Acupalpus (Acupalpus) schnitteri JAEGER 1999

General distribution: Israel and Syria.

Originally described as *Acupalpus suturalis* ssp. *schnitteri*, the taxon has been recently upgraded to species level (WRASE 2009: 906). It has been so far recorded from Syria (JAEGER 1999: 964) and Israel (JAEGER 1999: 962, WRASE 2009: 906).

The following additional material from Israel has been examined.

Examined material:

I s r a e l : Northern District: Hare Meron, 1000-1200 m, IV. 1987, Heinz (3 – cHEI); N-Galiläa, NW Zefat, W Meron, Tümpel S Mt. Meron, 250 m, , IV. 1996, Staven & Schnitter (3 – cSCHN). - Golan Heights: N Kela, 750 m, Feuchtwiese, V. 1996, Schnitter & Staven (1 – cWRA).

Acupalpus (Acupalpus) suturalis DEJEAN 1829

General distribution: France, Italy, Balkan Peninsula, southern Central and eastern Europe, Transcaucasia, Turkey.

Distribution in Middle East: Reliable records are so far known only

from Turkey (APFELBECK 1904: 205, JAEGER 1992: 227, 1999: 962). The country records from Iraq without detailed localities (ALI 1966: 21, 1974: 54) are based most likely on a misidentification and refer probably to another species of the *A. suturalis* group.

The following additional material from Turkey, including first records for the provinces Ağrı, Ankara, Konya, Niğde and Tokat has been examined.

Examined material:

Turkey: Ağrı: Ağrı, VII. 2009, Louda (2 – cWRA). – Antalya: Ugurlu, 48 km NNW of Antalya, V. 1988, Kanaar (11 – cFEL). – Ankara: 10 km S Güven, Sarayköy env., Egrekaya Barajı, VII. 2005, Hajdaj (1 – cWRA); Gölbaşı, 1100 m, südl. Ankara, IV. 1973, Heinz (1 – cHEI). – Edirne: Kapikule (border to Bulgaria) at light, VII. 1999, Slachta (1 – cSLA). – Konya: Bozkir, Yalılıyük, V. 1998, Nodmar (1 – cJEA). – Niğde: Yahyalı, 1200 m, Ağcaşar Barajı, 38°09'N, 35°23'E, V. 2007, Marggi (30 – cMAR, cJAE) – Tokat: 31 km ENE Tokat, Almus, 810 m, 40°23'N, 36°55'E (shore of reservoir), VII. 2008, Schülke (8 – cWRA).

***Acupalpus (Acupalpus) turcicus* JAEGER 1992**

General distribution: Middle East.

So far recorded from Cyprus (JAEGER 1999: 965, AUSTIN et al. 2008: 68, 69), Turkey (JAEGER 1992: 227) and Egypt (JAEGER 1999: 965).

The following additional material, including a possible first record for Iran and a first record for the Turkish province Mardin has been examined. The record from Iran is based on a somewhat atypical female and therefore should be confirmed by males from the same locality because of possible confusion with atypical females *A. paludicola* REITTER.

Examined material:

Turkey: Mardin: Hop Gecidi, Mardin env., V. 2005, Orszulik (4 – cWRA).

Iran: Azabayan-e Gharbi: Tahkt-e-suleiman 10 km SE, 3636N 4720E, VI. 2000, Hajdaj (1 – cWRA).

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Zusammenfassung

Nach Auswertung von weiteren, mehr als 700 Exemplare umfassenden, neueren, aber auch älteren *Acupalpus*-Aufsammlungen aus dem Nahen und Mittleren Osten sowie angrenzender Gebiete wird ein zweiter Nachtrag zur *Acupalpus*-Fauna dieses zoogeografisch vielfältigen und interessanten Gebietes vorgelegt. Das ausgewertete Material enthielt neben weiteren Aufsammlungen aus schon früher belegten Gebieten, sowohl Neufunde für verschiedene türkische und iranische Provinzen, als auch Erstinachweise für einige Länder. So kann *Acupalpus elegans* (DEJEAN 1829) nun auch für Syrien, *A. exiguus* DEJEAN 1829 für die Türkei, *A. maculatus* (SCHAUM 1860) für den Libanon, Pakistan und Indien (Jammu und Kaschmir-Region), *A. parvulus* (STURM 1825) für Pakistan (Gilgit-Baltistan) und *A. turcicus* JAEGER 1992 für den Iran nachgewiesen werden. Die Funde aus Pakistan und Nordwest-Indien erweitern dabei in der südlichen Westpalaearktis das bisher bekannte Verbreitungsgebiet der *Acupalpus*-Untergattung *Acupalpus* nach Osten.

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