

FAUNISTIC CONTRIBUTIONS TO THE *MICROCHELONUS*  
SZÉPLIGETI SPECIES OF THE PALAEARCTIC REGION,  
WITH DESCRIPTIONS OF TWO NEW SPECIES  
(HYMENOPTERA: BRACONIDAE: CHELONINAE)

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Present state of the knowledge of the Palaearctic *Microchelonus* species: 1) In TOBIAS (2010) monographed 434 *Microchelonus* species occurring in the Palaearctic Region of which Tobias alone has described 379 new species during the last five decades. 2) His monographic survey essentially promoted the identification of the Palaearctic species. In the present contribution 86 known *Microchelonus* species are reported. The majority of them are new to the fauna of one, or more, countries in the region; the respective countries are marked with an asterisk (\*) in the Faunistic List. Besides the 86 species two new species are added: *M. moczari* and *M. spinulosus*, they are compared to their nearest allies. Redescription is presented for the "omitted" (nomen oblitum) species *M. subsulcatus* (Herrich-Schäffer, 1838) originally described in the genus *Chelonus*. Taxonomic notes and nearest allies of *M. iranicus* Tobias are presented. The total number of the *Microchelonus* species here treated is 88. With 95 linedrawn figures.

Key words: known and new species, faunistic data, descriptions, nearest allies, checklist.

## INTRODUCTION

Recently a comprehensive survey was published by TOBIAS (2010) with an identification key to the *Microchelonus* Szépligeti, 1908 species of the Palaearctic Region. In his monograph 434 *Microchelonus* species were reviewed. In the descriptions of the new *Microchelonus* species Tobias is an exceptionally productive specialist: from among the 434 species he alone discovered and described 379 (i.e. 87% of 434) species mainly from the area of the former Soviet Union and the adjacent countries (e.g. Mongolia). Eleven species were omitted from TOBIAS' (2010) monograph: *M. areolatus* (Cameron, 1906), *M. blackburni* (Cameron, 1886), *M. curvoimaculatus* (Cameron, 1906), *M. chinensis* (Zhang, 1984), *M. equalis* Chen et Ji, 2003, *M. fortispinus* (Cameron, 1906), *M. longichair* Chen et Ji, 2003, *M. lunari* Chen et Ji, 2003, *M. rugicollis* (Thomson, 1874), *M. subsulcatus* (Herrich-Schäffer, 1838) and *M. subverticalis* Tobias, 2000.

The taxon *Microchelonus* is treated here as a valid genus, this taxonomic standpoint was expounded in my earlier paper (PAPP 1995). The generic / subgeneric status of the taxon *Microchelonus* depends mainly on the deliberation that which feature-composition is considered more decisive to treat *Microchelonus* as subgenus of *Chelonus* or as valid genus near to *Chelonus*. In this respect I

accept Tobias's interpretation of the generic validity of *Microchelonus* (TOBIAS 1995a, 2010, 2011).

In the present elaboration 86 previously described *Microchelonus* species are reported from the Palaearctic Region. The identification of the species were accomplished using Tobias's aforementioned monograph. In the case of dubious namings the original descriptions by Tobias or by other authors were considered (in this respect see References). TOBIAS (2010) praiseworthy procedure was to compile the key characterizing every species in a detailed, diagnostic manner. In my identifications an essential aid was that many *Microchelonus* species are represented in the braconid collection of the Hungarian Natural History Museum, Budapest, by their holotypes (Szépliget's species) or by their paratypes or by authenticated specimens (many of Tobias' species by exchange or donation). *Microchelonus* species are often extremely difficult to identify: many species differ from their nearest allies by subtle and minute traits. In this case authentically named specimens promoted reliable identifications.

The majority of the 86 *Microchelonus* species reported here are new to the fauna of many (mainly European) countries: the overwhelming majority of the Palaearctic species are known exclusively from the type locality (i.e. in one country) or in a less significant number from a few (one, two, three or four etc.) countries. Small is the number of the species which are distributed widely allowing them to be characterized faunistically as "sporadic", "frequent" or "common" in Europe, in western / eastern or in the entire Palaearctic Region.

In the present paper the number of the Palaearctic *Microchelonus* species is increased with the descriptions of two new species: *M. moczari* and *M. spinulosus*. Besides the usual descriptions they are compared to their nearest allies. Redescription is also presented for the "omitted" (nomen oblitum) species *Microchelonus subsulcatus* (Herrich-Schäffer, 1838) originally described in the genus *Chelonus* Panzer. The range of the taxonomic allies of *M. iranicus* is extended to include three more species.

## FAUNISTIC LIST

A total of 86 *Microchelonus* species are listed with their faunistic data: localities, collecting time etc. completed with short distributional remarks. The respective countries, turned out to be new for a *Microchelonus* species, are marked with an asterisk. The species names, after the generic name *Microchelonus*, are arranged in alphabetical order. Where not indicated the distributional data of the species are applied after Yu *et al.* (2012).

The collectors' names are given in an abbreviated acronyms:

AB = A. Beyarslan	AN = A. Nadimi	BT = B. Tallósi
AD = Á. Draskovits	AO = A. Orosz	DG = D. Gaunitz
AK = A. Kotán	AP = A. Podlussány	DRK = D. R. Kasparyan
AKot = A. Kótenko	AvH = A. van Harten	EB = E. Bajári
AM = A. Márkus	AZ = A. Zaykov	ECs = E. Csiki

EH = E. Horváth	IR = I. Rozner	MP = M. Pizzaghi
EJ = E. Jansen	JI = J. Itämies	MS = M. Söderlund
FJ = F. Janzen	JKl = J. Klapperich	MZ = M. Zargar
GEB = G.E. Bohart	JKy = J. Kyrki	NR = N. Rahmé
GEN = G.E. Nilsson	JO = J. Oehlke	OM = O. Merkl
GM = G. Melika	JP = J. Papp	PF = P. Fehérvári
GP = G. Pagliano	KS = K. Sajó	QA = Q. Argaman
GSz = G. Szelényi	KSz = K. Székely	RD = R. Danielsson
GyL = Gy. László	KW = K. Warncke	SH = S. Horvatovich
GyR = Gy. Rozner	LB = L. Biró	SM = S. Mahunka
GySz = Gy. Szépligeti	LC = L. Cederholm	SO = Mrs B. Sóllymos
HH = H. Hedické	LMé = L. Méhelý	SzS = Sz. Solt
HR = H. Riedl	LMO = L. Móczár	TM = T. Munk
IA = I. Andriescu	LZ = L. Zombori	VK = V. Kalina
IB = I. Boross	MH = M. Hreblay	ZK = Z. Kaszab
IKo = I. Kocs	MK = M. Kozlov	

*Microchelonus (M.) albor* Tobias, 1994 – 1 ♀: \*Romania, Transylvania, Maros megye (= county), Vármező, 2 VII 1999, AP. 1 ♀: Turkey, vil. Tokat, Camlibel, 1700 m, 26 VI 1996, AP. – Described from and so far known in Asiatic Russia: Primorski Krai.

*Microchelonus (M.) anxius* Tobias, 1992 – 4 ♂: Turkmenistan, Kopet-Dagh, Blkrova, 58°08'E/37°59'N, 300 m, 6 IV 1993, MH, GyL, AP. – Until now in Asiatic Russia: Transbaikal Krai.

*Microchelonus (M.) artus* Tobias, 1986, male new – 1 ♀: \*Armenia, 20 km s of Lake Sevan, 2000 m, 28 VII 1977, LZ. 1 ♀ (det. Tobias 1990): \*Bulgaria, Mts Rhodopes, Chvojna, 23 VI 1977, AZ. 1 ♀: \*Spain, Malaga, Torremolinos, 10 IV 1978, GEB. 1 ♀: \*Turkey, "Angora" (= Ankara), 13 VI 1923, LB. 1 ♂: \*Turkey, Gorum, Gumus, 25 V 1989, HR. – Described from and now known only in Moldova; new to the fauna of four countries.

*Microchelonus (M.) atripes* (Thomson, 1874) (= *M. cunctator* Papp, 1971; = *M. kamtschaticus* Tobias, 1986) – 1 ♂: \*Albania, Okol, Pass Qafe e Pejës, 1650 m, 20 VII 1996, AO. 2 ♂: \*China, prov. Beijing, 130 km NW from Beijing, Xiaolongmen Station, 1095 m, 28 VII 2002, GM. 1 ♂: Hungary, Bátorliget, taken in *Cirsio-Festucetum pratensis*, 14 VI 1988, AD. 1 ♂: Hungary, Székkutas, Vásárhelyi puszta, Sóstó, swept in ruderalia, 11 VI 2013, SzS, PF, EH. 1 ♂: \*Macedonia, prov. Kratovo, Žguri-pass, 88 m, 6 VI 1998, IR. 1 ♂: \*Macedonia, prov. Kratovo, Grizilevci, Žguri-pass, 880 m, 6–7 VI 1998, AO. 3 ♀: Romania, Transylvania, Hargita megye (= county), Gyergyó Mts, Pongráctető, Lóduj, 4–5 VII 1995, AP. 2 ♀: Romania, Transylvania, Runk szurdok (= gorge), 10 VII 1998, AO. 1 ♂: Romania, Transylvania, Hargita megye (= county), Kelemen Mts, Lomás-patak (= brook), 1000 m, 13 VII 1998, IR. 2 ♂: Romania, Transylvania, Hargita megye (= county), Tusnádfürdő, Szent Anna tó (= lake), 9 VII 1999, AP. 2 ♀ + 1 ♂: Romania, Gorj megye (= county), Vulcan, Pestisani, 300 m, LZ. – One of the commonest *Microchelonus* species in the Palearctic Region; until now known in 16 countries.

*Microchelonus (M.) azerbaijzhanicus* (Abdinbekova, 1971) – 1 ♂: \*Croatia, Velebit Mts, Krasno, 8 VIII 1999, IR. 1 ♂: \*Germany, RT-Öschingen Steinbach, 17 VII 1985, FJ. – Described from Azerbaijan, reported from Armenia, Greece and Spain.

*Microchelonus (M.) balkanicus* Tobias, 2003 – 1 ♀: \*Israel, Zur Natan, 26 VIII 1981, leg. QA. – Described from Hungary and Croatia (Tobias 2003: 455), perhaps a Mediterranean species.

*Microchelonus (M.) brevimetacarpus* Tobias, 1995 – 1 ♂: \*Hungary, Csomád, 27 V 1982, JP. 1 ♀: \*Turkey, villayet Ordu, Harcbeli, 1900 m, 6 VII 1996, AP. – Described from and hitherto known only in Asiatic Russia: Magadanskaya Oblast.

*Microchelonus (M.) breviradialis* Tobias, 1989 – 1 ♀: Mongolia, Ubsunurskiy aimak, Ubsy-nur (= lake), 50 km from Ulangoma, 6 VIII 1970, MK. – Described from Mongolia (TOBIAS 1989: 481), reported from Asiatic Russia: Chita Oblast (TOBIAS 2010: 121).

*Microchelonus (M.) brevis* (Tobias, 1976) – 1 ♀: \*Italy, Piacenza, Pertuso, 1000 m, 20 VIII 1976, MP. – Described from and hitherto known only in European Russia: Krasnodar Krai, Sochi.

*Microchelonus (M.) budapesti* Tobias, 1999 (? = *M. talyshicus* Tobias, 2003) – 1 ♂ (Chelonella sulcata "Nees" det. Szépligeti; *M. minutus* A. Costa det. Papp 1975; *M. ripaeus* Tobias det. Tobias 1990): \*Croatia, Novi, GySz. 1 ♂ (Chelonella sulcata "Nees" det. Szépligeti; *M. ripaeus* Tobias det. Tobias 1990): Hungary, Budapest, Sashegy, 17 VI 1896, GySz. – Described from Hungary and hitherto known only in this country. The name *M. talyshicus* seems a junior synonym of and, furthermore, the species *M. budapesti* is very near to *M. zaitzevi* Tobias, 1972 (known in Mongolia).

*Microchelonus (M.) calcaratus* Tobias, 1989 – 2 ♂: \*Macedonia, prov. Prilep, Mažurčiste, 31 V 1998, AP. 1 ♂: \*Macedonia, prov. Kratovo, Grizilovci, Žguri-pass, 880 m, 6–7 VI 1998, AO. 1 ♂: \*Syria, bor. muh. Dimashq, 1 km E of Burqush, 1140 m, 29 IV 2005, NR, AM, AK et AP. 1 ♀: \*Turkey, vil. Ordu, Harcbeli, 1900 m, 6 VII 1996, AP. 1 ♂: \*Turkey, vil. Canakkale, Gelibolu Yarimadasi, Bayirköy, 12 V 2001, GyR. 1 ♀: \*Turkey, vil. Nugla, 10 km E of Mugla, Kötekli, 17 V 2001, GyR. 1 ♀: \*Turkey, vil. Denizli, 3 km N of Bulolan, 16 V 2001, GyR. – Described from and so far known only in Mongolia (TOBIAS 2010: 131), new to three countries in the western Palaearctic Region.

*Microchelonus (M.) chasanicus* Tobias, 2000 – 1 ♂: \*Jordan, Petra, 400 m, 2 V 1959, JKI. – The species was described by two male specimens taken in Asiatic Russia: Primorski Krai (TOBIAS 2000: 568), further locality unknown.

*Microchelonus (M.) circumfossa* Tobias, 2002 – 1 ♂: \*Croatia, Vransko jezero, Žup. Benkovac, Radasinovci, 120 m, 18 VII 2002, AP et KSz. 3 ♂: \*Turkey, vil. Ankara, Camlidere, 1200 m, 24–25 VI 1996, AP et IR. – Described from and so far known only in Asiatic Russia: Primorski Krai.

*Microchelonus (M.) continens* Tobias, 1989 – 1 ♀: \*Hungary, Budapest: Zugliget, 7 VI 1897, GySz. 1 ♀: \*Macedonia, prov. Tetovo, Zelino, 30 V 1998, IR. 1 ♂: \*Turkey, vil. Ankara, Camlidere, 1200 m, 24–25 VI 1996, AP. – Described from Mongolia (Khorgan Lake) (TOBIAS 1989: 459), reported from Asiatic Russia: Transbaikal Krai, Tuva (TOBIAS 2010: 171).

*Microchelonus (M.) contractus* (Nees, 1816) – 1 ♂: \*Albania, Okol, Pass Qafe e Pejes, 1650 m, 17 VII 1996, AO. 1 ♂: Asiatic Russia, West Altai Mts, Kolyvanskoye lake, 23–24 VII 1993, AO. 1 ♂: \*China, prov. Beijing, 130 km NW of Beijing, Liyan Ling, Linshan Mts, 1749 m, 3 VIII 2002, GM. 1 ♂: \*Croatia, Velebit Mts, Krasno, 8 VIII 1999, IR. 1 ♂: \*Denmark, E-Jutland, Faglslev, 20 VII 1994, TM. 2 ♂: \*Denmark, E-Jutland, Gravlev, taken in *Corynephorus* – *Jasione* community, 12 VII 1995, TM. 1 ♂: \*Denmark, E-Jutland, Bindeballe, 8 VII 1997, TM. 1 ♂: \*Denmark, E-Jutland, Mols Femmöljer, taken in dry meadow, 1 VII 1997, TM. 1 ♀: \*Finland, Oulu, 1971, JKy. 1 ♂: Greece, prov. Thessaloniki, Nymfopetra, 21 V 1995, IR. 1 ♂: \*Iran, prov. Gilan, Roodsar, Orkom, taken with Malaise trap, 5–19 VII 2010, MZ. 2 ♂: \*Macedonia, prov. Skopje, Skopska Crna Gora, Mon. Sv. Jovan, 500 m, 27 V 1998, AP. 1 ♀: \*Macedonia, prov. Skopje, Skopska Crna Gora, 1400–1500 m, 28 V 1998, IR. 1 ♂: \*Macedonia, prov. Skopje, Mt. Ivanje Matka, 900 m, 1 VI 1998, IR. 5 ♂: Spain, Cataluna, Torreta de l'Orri, Portainé, 1600 m, 25 V 2001, AO. 1 ♂: Spain, Cataluna, Valencia de Aneu, Borén, 1100

m, 26 V 2001, AO. 1 ♂: Spain, Andalucia, prov. Jaén, Puente de Genave, 27 V 2003, IR et GyR. 2 ♂: Spain, Aragon, prov. Zaragoza, Caspe, 1 VI 2003, IR et GyR. 1 ♀: Syria, bar. muh. Homs, on Nasra, 650 m, 26 IV 2005, NR, AM, AK et AP. 1 ♂: Turkey, vil. Sivas, Irmanli, 27 VI 1996, IR. – The commonest *Microchelonus* species in the Palaearctic Region.

*Microchelonus (M.) cretensis* Tobias, 1999 – 1 ♀: \*Kosovo, Ipek, 23 VI 1917, ECs. – Described from Greece: Crete (TOBIAS 1999: 701), reported from Turkey. The name *cretensis* was synonymized with *kopetdagicus* by LOZAN (2005), however, TOBIAS (2010: 120) considers his name as valid. Indeed, the species *M. cretensis* is very near to *M. kopetdagicus* (Tobias).

*Microchelonus (M.) curtigenis* Tobias, 1989 – 1 ♀: \*Asiatic Russia: West Altai Mts, Kolyvanskoye lake, 23–24 VII 1993, AO. – Described from and so far known only in Mongolia: Elsen-Devseg.

*Microchelonus (M.) denticulatus* Tobias, 1986 – 1 ♂: \*Macedonia, prov. Skopje, Mt Vodno, 16 VII 1997, IR. – Described from Moldavia on the basis of three female + four male specimens taken in three localities (TOBIAS 1986a: 324); reported from Czechia (LOZAN & TOBIAS 2002: 1182).

*Microchelonus (M.) dolosus* Tobias, 1989 – 2 ♂: \*Croatia, Velebit Mts, Oltari, 7 VIII 1999, AP. 1 ♀: \*Dania, N Jylland, Rold Skov, 25 km S of Ålborg, TM. 1 ♀: \*Dania, E-Jutland, Fuglslev, 56°16'N / 10°43'E, 3 VII 1994, TM. 1 ♀: \*Dania, E-Jutland, Bindeballe, 55°40'N / 9°16'E, 8 VII 1997, TM. 1 ♀: \*Dania, Ahornvej, pantrap on sandy grassland, 26–29 VII 1996, TM. 1 ♀: \*Hungary, Tiszakürt: Bogaras, 3 V 2005, AP et BT. 1 ♂: \*Macedonia, prov. Tetovo, Šar planina, Popova Sapka Mt., 1600–1800 m, 11 VII 1997, GyR. 1 ♂: \*Macedonia, prov. Kruševo, Crn Vrv, 1400 m, 13 VII 1997, GyR. 1 ♂: \*Sweden, Sm., Bergkvara, 28–29 VI 1988, RD. 1 ♀: \*Sweden, Vg. Kärrobo s:n, Solbacken, taken with Malaise trap, 1–8 VII 1989, GEN. 1 ♂: \*Sweden, Vg. Göteborg, Marienholm, taken with yellow pan trap, 20–31 VII 1994, MS. 1 ♀: \*Turkey, vil. Ankara, Camlidere, 1200 m, 24–25 VI 1996, AP. – Described from Mongolia: river Ider near Dchargalanta (TOBIAS 1989: 346), reported from the Altai Mts in Asiatic Russia (TOBIAS 2010: 35). New to six countries in the western Palaearctic Region, here it seems a fairly frequent species.

*Microchelonus (M.) erratus* Tobias, 1999 – 1 ♀ (*Chelonella contracta* Nees det. Szépliget): \*Hungary, Budapest: Svábhegy, 17 VII 1899, GySz. 1 ♀: \*Hungary, Óhuta: Mlaka rét (= meadow), 30 VI 1979, JP. 1 ♀: \*Romania, Transylvania, Hargita megye (= county), Homoródkeményfalva, 14 V 1996, IKo et AP. 1 ♀: \*Romania, Transylvania, judele Bihor, Uvala Balileasa, Padish Mts, 1150 m, 25 VII 2005, AO. – Known in Asiatic Russia: Primorski Krai and Kuril Islands. New to two countries in Europe.

*Microchelonus (M.) exilis* (Marshall, 1885) – 1 ♀: \*Sweden, Löderup, 24 VII 1938. – Widely distributed in the Palaearctic Region as far eastwards as Asiatic Russia: Siberia, Mongolia; in Europe fairly frequent: known in many countries.

*Microchelonus (M.) fischeri* Tobias, 1994 – 1 ♂: Hungary, Pilismarót, GySz. 1 ♂: Hungary, Vác: Naszály, 15 VI 1972, GSz. 1 ♂: Háromhuta: Nagykirályos (Zemplén Mts), 30 VI 1979, JP. – Described from five countries in Europe: Austria, Hungary, Finland, Lithuania, European Russia (Karelia) (TOBIAS 1994a: 169). Reported from Spain, Portugal, France, Bulgaria and Turkey (TOBIAS 2010: 109).

*Microchelonus (M.) flavipalpis* (Szépliget), 1896 – 1 ♀: Hungary, Nagyarsány: Szársomlyó, 13 VI 1954, IB. 1 ♂: Hungary, Gyöngyös. 1 ♂: Hungary, Darány, taken in protected forest, 23 VI 1982, JP. 1 ♀ + 1 ♂: Georgia, Naa, Kodori stream, 25 V 1975, LZ. 1 ♀ (det. Tobias 1989): Asiatic Russia, Sakhalin, Novoalexandrovskiy, 27 VII 1980, AKot. – Described from Hungary, reported from Asiatic Russia, Ukraine, Moldova, Georgia and Turkey. A fairly frequent species in the Palaearctic Region.

*Microchelonus (M.) flavonaevulus* (Abdinbekova, 1971) – 1 ♀: Bulgaria, Lozence, 20 VI 1983, AP. 1 ♀: Turkey, vil. Tekirdag, Hayrabolu, 5 VI 2001, GyR. – Besides Bulgaria and Turkey known in Macedonia, Greece, European Russia (Dagestan) and Iran (TOBIAS 2010: 92).

*Microchelonus (M.) frontalis* Tobias et Lozan, 2006 – 1 ♀: \*Hungary, Budapest, GySz. 1 ♀: Hungary, Órszentmiklós, 6 VII 1922, KS. – Described from and hitherto known only in Czechia (TOBIAS & LOZAN 2006: 111, TOBIAS 2010: 141).

*Microchelonus (M.) gracitis* Lozan et Tobias, 2006 – 1 ♂: \*Macedonia, prov. Kratovo, Grizilevci, Žguri-pass, 880 m, 6–7 VI 1998, AO. 1 ♂: \*Greece, prov. Lakonias, Taygetos Mts, Garani, 500 m, 27 V 2004, IR. 1 ♂: \*Turkey, vil. Cankiri, Susuz, 1200 m, 9 VII 1996, AP. 1 ♂: \*Turkey, vil. Bursa, Sogukpinar, Ula Dag (=Mt.), 1200 m, 28 V 2001, GyR. – Described from and so far known in Czechia (LOZAN & TOBIAS 2006: 333); new to three countries in the Western Palaearctic Region.

*Microchelonus (Parachelonus) gravenhorsti* (Nees, 1816) – 1 ♂: France, Corse, Coll. Marshall. 1 ♂: France, Nantes, Coll. Marshall. 1 ♂: England, Devon, Cornworthy near Totnes, Coll. Marshall. All three males were named by Szépligeti as *Chelonus contractus* Nees. – In Europe fairly frequent, eastwards distributed sporadically in Kazakhstan, Asiatic Russia (Primorski Krai) and Korea.

*Microchelonus (M.) helleni* Tobias, 1999 – 1 ♀: Macedonia, prov. Skopje, Ivanje, Matka Mt. 900 m, 1 VI 1998, AP. – Described from Macedonia, reported from Bulgaria (TOBIAS 2010: 108).

*Microchelonus (M.) ibericus* Tobias, 2001 – 1 ♂: Turkey, vil. Ankara, Camlidere, 1200 m, 24–25 VI 1996, AP. – Described from Spain, reported from Czechia (TOBIAS & LOZAN 2003: 243) and Asiatic Russia: Tuva (TOBIAS 2010: 132).

*Microchelonus (M.) incisus* Tobias, 1986 – 1 ♀: Hungary, Veszprém, 29 V 1983, AP. 1 ♀: Hungary, Nádasd: Csonka erdő, 20 VIII 1988, IR. 1 ♀: \*Macedonia, prov. Kratovo, Žguri pass, Grizilevci, 800 m, 7 VI 1998, AO. 1 ♂: \*Syria, bor. muh. Homs, An Nasra, 650 m, 26 IV 2005, NR, AM, AK et AP. – Described from European Russia: Chelyabinsk oblast, reported from Hungary (PAPP 1996: 146), The Netherlands (TOBIAS 2010: 197) and Mongolia (Yu *et al.* 2012).

*Microchelonus (M.) insidiator* Tobias, 1989, male new – 1 ♀: \*Hungary, Pécsbánya, 15 VI 1957, ML. 1 ♂: \*Egypt, Babtım, bred from dead cotton bolls, Royal A. S. Farm, F. C. Willcocks. – Described from and hitherto known only in Mongolia. The two females here discussed coincide to the original description (TOBIAS 1989: 465). Features of the male: two penultimate flagellomeres 1.6 times as long as broad, apical aperture of carapace 2.5 times as wide as high.

*Microchelonus (M.) iranicus* Tobias, 2001 – See its redescription in the section Description ... and redescription ... of four *Microchelonus* species.

*Microchelonus (M.) irritus* Tobias, 1994 – 1 ♀ + 1 ♂: \*Hungary, Felsőörs, 30 V 1966, JP. 1 ♀: \*Turkmenistan, Kopet Dag (=Mts), Bilkrova, 300 m, 6 IV 1993, MH, GyL et AP. – Described from European Russia: Primorski Krai, reported from Finland (KOPONEN in litt.).

*Microchelonus (M.) karadagensis* Tobias, 2001 – 1 ♀: \*Croatia, Jadranovo, 21 VI 1978, IR. – Described from Peninsula Crimea (Ukraine), reported from Turkey (TOBIAS 2010: 100).

*Microchelonus (M.) kiritshenkoi* (Tobias, 1976) – 2 ♀: \*Macedonia, prov. Kavardaci, Dobrište, 31 V 1998, IR et AP. – Described from European Russia: Osetiya (Precaucasus), reported from Azerbaijan and Bulgaria (TOBIAS 1976: 237, 1986: 323).

*Microchelonus (M.) kopetdagicus* (Tobias, 1966) (= *Neochelonella caucasicus* Abdinbekova, 1967) – 5 ♀: Spain, Andalucia, prov. Granada, 50 km S of Granada, Izbor, 24 V 1993,

IR et GyR. 1 ♀: Spain, Andalucia, prov. Jaén, 10 km S of Villacarrillo, Mogon, 26 V 1993, IR et GyR. 1 ♀: Croatia, Dalmatia, Mljet Island, Dugo Polje, 27 V 2002, GyR et IR. 1 ♀: Croatia, Dalmatia, Mljet Island, Blatsko polje, 29 V 2002, GyR et IR. 1 ♀: \*Macedonia, prov. Kruševo, Kruševo, 1400 m, 13 VII 1997, GyR. – Distributed rather sporadically in the southern part of the western Palaearctic Region, eastwards as far as Kazakhstan.

*Microchelonus (M.) kostylevi* Tobias, 2003 – 1 ♂: \*Germany, Naturschutzgebiet Federsee, Oggelsch. Wald, 6 VII 1984, EJ. 1 ♂: \*Hungary, Budapest, Gellérthegey, 13 VIII 1895, GySz. – Known in Ukraine: Crimea (locus typicus) and Bulgaria, (TOBIAS 2010: 105).

*Microchelonus (M.) kotenkoi* Tobias, 1992 – 1 ♂: \*Macedonia, prov. Štip, Konečka planina, Leskovic, 600 m, 7 V 1997, AP. 1 ♂: \*Turkey, prov. Denizli, 3 km N of Buldan, 16 V 2001, GyR. – Described from and hitherto known in Asiatic Russia: Chita Oblast (TOBIAS 2010: 211).

*Microchelonus (M.) laticeps* (Tobias, 1972) – 1 ♂: \*Hungary, Nagykovácsi: Kopasz erdő (= forest), 350 m, swept in *Quercetum petraeae-cerris*, 11 VII 1984, OM. – Described from and so far known only in Mongolia (TOBIAS 1972: 607).

*Microchelonus (M.) latifossa* Tobias, 1990 – 2 ♂: \*Spain, prov. Ciudad Real, Castilla, La Mancha, Horcajo de los Montes, 16 V 2003, IR et GyR. 1 ♂: \*Turkey, Stambul, 14 V 1925, BL. 1 ♂: \*Syria, bor. muh. Haleb, 10 km E of Aleppo, 280 m, 21 IV 2005, NR, AM, AK et AP. – Described from Mongolia, reported from Bulgaria (TOBIAS 2010: 192).

*Microchelonus (M.) longiventris* (Tobias, 1964) – 1 ♀: \*Germany, Bayern, Bodenseekreis, Rache, Echbelk, 19 VII 1983, EJ. – Described from Kazakhstan, reported from six countries in the Palaearctic Region: Hungary, Serbia, Lithuania, Moldova, Azerbaijan and Asiatic Russia: Chita Oblast (TOBIAS 2010: 81).

*Microchelonus (M.) luteipalpis* Tobias, 1994 – 2 ♀: \*Turkey, Adana, 14 (1 ♀) and 19 (1 ♀) VIII 1979, AB. – Described from and hitherto known only in Asiatic Russia: Primorski Krai (TOBIAS 2010: 140).

*Microchelonus (M.) luzhetzkji* (Tobias, 1966) – 1 ♂: \*Romania, Transylvania, Parajd, Kisküküllő-völgy (= valley), 1 VII 1995, IR. – Described from Uzbekistan, reported from six countries in the western Palaearctic Region: Hungary, Armenia, Kazakhstan, Tadjhikistan, Turkmenistan, Mongolia. It seems a fairly frequent species in the region discussed. A re-description of *M. luzhetzkji* was given by LOZAN and TOBIAS (2006: 328).

*Microchelonus (M.) magnifissus* Tobias, 1986 (= *Chelonus fissus* Szépligeti, 1900 nec Provancher, 1881) – 1 ♀: Kazakhstan, Alma Ata, mit *Allium* sp. eingetragen V 1972, em. 1973. – Originally described under the name *Ch. fissus* by SZÉPLIGETI (1900) (jun. homonym); the new name: *M. magnifissus* was given by TOBIAS (1986: 327). Reported from six countries in the Palaearctic Region: Czechia, Bulgaria, Moldova, Kazakhstan, Mongolia, Asiatic Russia: Yakutia.

*Microchelonus (M.) microphthalmus* (Wesmael, 1838) (= *M. dilatatus* Papp, 1971) – 1 ♀: Spain, Cataluna, Cabanellos, Mare de Den del Mont, 800 m, 30 V 2001, AO. 1 ♀: Denmark, East Jutland, Rugård strand, 18 VI 2001, TM. 3 ♂: Macedonia, prov. Skopje, Mt. Ivanje Matka, 900 m, 1 VI 1998, AP. 1 ♀ + 1 ♂: Macedonia, prov. Mak. Brod., Treska valley, 4 km North of Devič, 3 VI 1998, AO et IR. 1 ♂: Macedonia, prov. Kratovo, Žguri pass, 880 m, 6 VI 1998, IR. 1 ♂: Macedonia, prov. Borovo, Malesevski planina, 800 m, 6 VI 1998, AO. 1 ♀: Turkey, vil. Mugla, 10 km East of Mugla, Kotelki, 17 V 2001, GyR. – In Europe fairly frequent, eastwards sporadically distributed as far as Mongolia, Asiatic Russia (Chita Oblast, Primorski Krai) and Korea.

*Microchelonus (M.) milkoi* Tobias, 2003 – 1 ♀: \*Iran, prov. Gilan, Reedsar, Orkom, 5–19 VII 2010, AN. – Described from and hitherto known only in Kirghizistan (TOBIAS 2010:

122). Variability of a few traits of this species was indicated by the described himself (TOBIAS 2003: 463): transverse carina of propodeum distinct to weak, fore wing with  $1-R_1$  0.7 to 0.9 times as long as pterostigma, hind femur 3.5 to 3 times as long as broad.

*Microchelonus (M.) minifossa* Tobias, 1986 – 1 ♀: \*Denmark, East Jutland, Kiellerup, 7 km South from Mariager, 20 VIII 1986, TM. 1 ♂: \*Denmark, East Jutland, Skramsø Plantage, 24 VI 2001, TM. 1 ♀: \*Denmark, East Jutland, Grenå sdr strand, 10 VII 2002, TM. 1 ♂ (as *M. subsulcatus* Herrich-Schäffer det. Papp 1975): \*Macedonia, Lake Dojran, Dojran, 150–500 m, 9–10 V 1971, JP et SH. 1 ♂: \*Turkey, Pass West Hakkari, Altin Daglari, 2600–3000 m, 13 VIII 1979, KW. – Described from Moldova, reported from Czechia, Slovakia, Hungary. A redescription and distribution of *M. minifossa* was given by LOZAN and TOBIAS (2006: 327).

*Microchelonus (M.) minutus* (A. Costa, 1884) – 1 ♀: Italia, Piacenza, Castelvetro, 7 VIII 1961. – Described from Italy, reported from six countries in Europe: Germany, Switzerland, Slovakia, Hungary, Croatia, Serbia.

*Microchelonus (M.) moroccanus* Tobias, 2008 – 1 ♀: \*Portugal, P. Geres National Park, near Cabril, 26 VI 1991, TM. 1 ♀: \*Hungary, Vác, 28 VII 1974, VK. – Described from and until now known only in Morocco.

*Microchelonus (M.) nachitshevanicus* (Abdinbekova, 1971) – 1 ♂: \*Algeria, wil. Bouire, Lakhdaria, 25 IV 1995, IR. 1 ♀: \*Austria, Ötztaler Alpen, Untergurgl, 1800 m, 25 VIII 1970, SM. 1 ♀: \*Austria, Obergurgl, 1800–2100 m, 27 VIII 1970, SM. 1 ♀: \*Austria, Austria, Obergurgl, Belstein, 2400 m, 7 IX 1970, SM. 2 ♂: Turkey, vil. İçel, Ort a Toroslars, 50 km South Güzeloluk, 900 m, 8 VI 2004, KSz. 1 ♀: \*Syria, bor. muh. Dimashq, 1 km East of Burqush, 1140 m, 29 IV 2005, NR, AM, AK et AP. – Described from Azerbaijan, reported from Turkey (TOBIAS 2010: 45).

*Microchelonus (M.) nartshukae* Tobias, 1989, male new – 1 ♂: \*Denmark, East Jutland, Mols, Strand-koer, 17 VI 1996, TM. 1 ♂ (*M. caucasicus* Abdinbekova det. Tobias 1990): \*Hungary, Szakonyfalu, 26 VI 1979, JP. – Described from Mongolia, reported from Asiatic Russia: Tuva (TOBIAS 1989: 479, 2010: 115).

*Microchelonus (M.) nigellus* Tobias, 1999 – 1 ♀: \*Spain, Cataluna, prov. Tarragona, Salon, 4 VII 1999, IR. 1 ♂: \*Spain, Andalucia, prov. Jaén, 10 km South of Villacarrillo, Mogon, 26 V 2003, GyR. 1 ♀: \*Spain, Castilla, La Mancha, prov. Albacete 70 km SW of Albacete, Redledo, 30 V 2003, IR et GyR. 1 ♂: \*Spain, Aragon, prov. Zaragoza, Caspe, 1 VI 2003, IR et GyR. 1 ♂: \*Croatia, Dalmatia, Crkvenica, 1 VII 2001, KSz. 9 ♂: \*Croatia, Dalmatia, Vransko jezero, Žup. Benkovac, Radašinovci, 120 m, 18 VI 2002, AP et KSz. – Described from Germany: ?Achen (holotype in Förster Coll., Berlin) (TOBIAS 1999: 703), distributed in "Central Europe" (TOBIAS 2010: 99).

*Microchelonus (M.) nigrilateralis* (Abdinbekova, 1971) – 1 ♀: \*Tunisia, North of Sousse, 3 km South of Hergla, 12 IV 1994, RD. 2 ♂: \*Algeria, Mascara, Buo-Hanifia, 8 V 1986, IR. 1 ♂: \*Spain, Andalucia, prov. Granada, 20 km East of Granada, Sierra Nevada Mts, 1200 m, 24 V 2003, IR et GyR. 1 ♀: \*Hungary, Fenyőfő, 26 VI 1988, IR. 1 ♀: Bulgaria, Rhodopes Mts, Hrabrino, 700 m, 7 VII 1985, JP. 1 ♀: Turkey, vil. Kastamonu, Tosya, 650 m, 9 VII 1996, AP. 2 ♀: Turkey, vil. Tekirdag, Hayrabolu, 5 VI 2001, RI. 1 ♂: \*Syria, bor. muh. Dimashq (= Damascus), 1 km East of Burqush, 1140 m, 29 IV 2005, NR, AM, AK et AP. 1 ♀: \*Jordan, 24 III 1956, JKL. – Described from Azerbaijan (ABDINBEKOVA 1971: 399), reported from Nederland, France, Bulgaria, Turkey. New to the fauna of six countries in the western Palearctic Region, here perhaps a frequent species.

*Microchelonus (M.) nigrutilus* (Dahlbom, 1833) – 1 ♀: Germany, Umgebung Berlin, Biesenthal, 9 VIII 1964, JO. 1 ♀: Germany, Schlitz-Hessen, Breitenbach, Gewachshaus, VII



1970. – Described from Sweden, reported from Finland, Germany, Hungary (PAPP 1997: 8), Bulgaria and Turkey (TOBIAS 2010: 107).

*Microchelonus (M.) nigritus* Tobias, 1999, male new – 1 ♂: \*Spain, Cataluña, Torreta de l'Orri, Portainé, 1600 m, 25 V 2001, AO. – Described from Kazakhstan (Altai Mts) and Finland. Male is identical to the female, its distinctive features: apical aperture of carapace three times as wide as high, its ventral margin almost straight (cf. Fig. 24); antenna slightly shorter than length of body (that of female hardly reaching middle of carapace) and with 21 antennomeres, penultimate flagellomere nearly 1.4 times as long as broad.

*Microchelonus (M.) pappi* Tobias, 1985, male new – 1 ♂: \*France, Les Sirées, 200 m, 2 VII 1983, LC. – Described from and hitherto known only in Armenia (TOBIAS 2010: 151). The male form is identical to the female, apical aperture of male carapace three times as wide as high, its ventral margin bent; antenna with 19 antennomeres, pterostigma of fore wing wide: 2.3 times (that of female less wide: 2.6–2.7 times) as long as wide.

*Microchelonus (M.) parverticalis* Tobias, 2000 – 1 ♂: \*Finland, Kemle: Pelkosenniemi, host taken 19 VI 1994, host's foodplant *Salix lapponum*, ex *Stigmella perpygmaeella* (Double-day) (Lep. Nepticulidae), JI. – Described from and so far known in Asiatic Russia: Primorski Krai, Sakhalin.

*Microchelonus (M.) przhewalskii* Tobias, 2001 – 1 ♀: \*Turkey, vil. Erzincan, 46 km West from Tercan, 1200 m, 28 VI 1996, AP. – Described from and so far known only in Kirghizia (TOBIAS 2010: 92).

*Microchelonus (Stylochelonus) pusillus* (Szépligeti, 1908) (= *M. tuberculiventris* Tobias, 1986) – 1 ♀: \*Denmark, East Jutland, 3 km South of Oster, Vrå, swept in dry meadow, 30 VII 1997, TM. 1 ♀: \*Denmark, East Jutland, Hevring hede, 10 VII 2001, TM. – Described from Hungary (SZÉPLIGETI 1908: 408), reported from many countries in the Palearctic Region. A frequent species in Europe.

*Microchelonus (M.) retusus* (Nees, 1816) (= *Chelonus caudatus* Thomson, 1874) – 1 ♀: Germany, Berlin. 1 ♀: Germany, Karlstadt (Main), Kalbenstein, 15 VIII 1944, HH. 3 ♂: Romania, Independența, 9 VI 1984, IA. 1 ♂: \*Bulgaria, Rhodopes Mts, Gornoslav, 400 m, 4 VII 1985, JP. – Widely distributed in the Palearctic Region, eastwards as far as Mongolia. Its locus typicus falls in Germany.

*Microchelonus (M.) ripaeus* Tobias, 1986 – 1 ♀: \*Dania, Langeland, near Gulstrav klint, taken on the sea shore, 27 VII 1978, TM. 1 ♂: \*Croatia, Velebit Mts, Krasno, 8 VIII 1999, AP. 1 ♀: \*Croatia, Dalmatia, Ravni Kotari, Žup. Zadar, Islam Grški, 11 VI 2001, KSz. 1 ♂: \*Macedonia, prov. Kruševo, Kruševo, Crn Vrv Mt., 1400 m, 13 VII 1997, GyR. 3 ♂: \*Macedonia, prov. Skopje, Skopska Crna Gora, 500–600 m, Mon. Svetla Jovan, 27 V 1998, AP et IR. 1 ♂: \*Asiatic Russia, Altai Mts, Charysh district, Pokrofka, 1200 m, 1200 m, 7–20 VII 1993, AO. – Described from the Ural Mts (Russia), known in European Russia (Kol'skiy Peninsula), The Netherlands, France, Spain, Germany, Turkey (TOBIAS 2010: 137).

*Microchelonus (M.) risorius* (Reinhard, 1867) (= *Neochelonella fissuralis* Tobias, 1964; = *Chelonus fissus* Szépligeti, 1900) – 1 ♂: Hungary, Kunfehértó, 28–31 V 1962, EB. 1 ♀ (*M. fissuralis* Tobias det. Tobias 1990): Hungary, Miskolc, Bükk Mts, Létrás-tető, 13 VII 1966 LM. 1 ♀ (*M. fissuralis* Tobias det. Tobias 1990): Hungary, Budapest: Békásmegyer, 12 VII 1986, IR. 1 ♂ (*M. fissuralis* Tobias det. Tobias 1990): Hungary, Lórév, 100 m, 22 VII 1988, OM. – Described from Germany, reported from many countries in Europe, eastwards known in Asiatic Russia: Yakutia.

*Microchelonus (M.) rondanus* Tobias, 2008 – 1 ♀: \*Algeria, Mostaganem, El-Macta, Fôret de Macta, 29 V 1986, IR. 1 ♀: Spain, Andalucia, prov. Granada, 50 km South of Granada, 14 V 2003, IR et GyR. 1 ♀: \*Hungary, Órszentmiklós, VI 1913, KS. 1 ♀: \*Hungary,

Hortobágy, 5 VI 1951, JE. 1 ♀: \*Hungary, Szín: Kopolya-tető, 14 VII 1988, AP. 1 ♀: \*Bulgaria, Külelise, 10 VII 1928, LB. 1 ♀: \*Bulgaria, Rhodopes Mts, Dobrostan, 1000 m, 6 VII 1985, JP. – Described from and so far known in Spain (TOBIAS 2010: 29).

*Microchelonus (M.) rostratus* (Tobias, 1966) – 1 ♂: \*Denmark, East Jutland, Rønne, 25 VI 2001, TM. 1 ♂: \*Denmark, East Jutland, Glatved, 5 VII 2001, TM. 1 ♀: \*Macedonia, prov. Kruševo, Kruševo, Crn Vrv Mt, 1400 m, 13 VII 1997, IR. 1 ♂: \*Macedonia, prov. Tetovo, Želino, 30 V 1998, IR. 1 ♀ + 1 ♂: \*Macedonia, prov. Skopje, Ivanje Matka Mt, 900 m, 1 VI 1998, AP. 1 ♀: Bulgaria, Trakia, Stojkovo, 21 V 1989, IR. 1 ♂: Turkey, vil. Erzurum, 6 km West from Askale, 1900 m, 28 VI 1996, AP. – Described from Turkmenia and Armenia (TOBIAS 1966: 116), reported from eleven countries in the western Palaearctic Region: Nederland, France, Slovakia, Hungary, Bulgaria, Greece, Moldova, Ukraine, European Russia, Turkmenistan.

*Microchelonus (Parachelonus) rubriventris* (Tobias, 1988) – 2 ♂: \*Denmark, East Jutland, North of Stubbe Sø, swept in wet meadow, 20 VII 1977, TM. 1 ♂: \*Romania, Crasna, 26 VI 1981, IA. – Described from Lithuania (TOBIAS 1988: 91), reported from Hungary (PAPP 1996: 149).

*Microchelonus (M.) rugicollis* (Thomson, 1894) (= *M. irrepertus* Tobias, 1986 partim, = *M. temporalis* Tobias, 1986) – 1 ♀: Hungary, Csömör, 29 VI 1959, SO. 1 ♀: \*Italia, Piemonte, San Benedetto Belbo, Langhe, 3 VII 1977, GP. 1 ♀: \*Turkey, vil. Kars, Ararat Mts, 4 VI 1989, IR. 1 ♂: \*Turkey, vil. Balikesir, Erdek, Kapi Dag, 400 m, 29 V 2001, GyR. 1 ♂: \*Yemen, Ma'bar, 24 VII 1992, AvH. – Described from Sweden (THOMSON 1874: 580), reported from Spain, Czechia, Hungary, Slovakia (PAPP 1996: 154), Austria, Albania, Bulgaria, Ukraine, European Russia (Caucasus Mts, Ural Mts), Azerbaijan, Kirghizia and Asiatic Russia (Primorski Krai) (TOBIAS 2010: 79–80). The name *M. temporalis* was synonymized by PAPP (1990: 313–316), however, TOBIAS (1994a: 170–172) did not accept the synonymy, i.e. revalidated his name. The species is new to three countries in the western Palaearctic Region.

*Microchelonus (M.) semenovi* Tobias, 1986 – 1 ♂: \*Macedonia, prov. Štip, Konečka planina, Leskovac, 600 m, 7 V 1997, AP et IR. 2 ♂: \*Macedonia, prov. Skopje, Ivanje Matka Mts, 900 m, 1 VI 1998, AP et IR. 1 ♂: \*Bulgaria, Rhodopi Mts, Markovo, 13 VIII 1977, AZ. 1 ♂: \*Turkey, vil. Balikesir, Kapi Dag, Yanmadasi, Ocaklar, 2 VI 2001, GyR. – Described from European Russia: Kazachiy, Ural Mts (TOBIAS 1986a: 325), reported from Asiatic Russia: Primorski Krai (TOBIAS 2010: 75).

*Microchelonus (M.) sinevi* Tobias, 2000 – 1 ♂: \*Norway, Telemark, 120 km West of Notodden, 17 VII 1976, TM. 1 ♂: \*Denmark, East Jutland, Rønne, 25 VI 2001, TM. – Described from and hitherto known in Asiatic Russia: Primorski Krai (TOBIAS 2010: 166).

*Microchelonus (M.) sochiorum* Tobias, 2005 – 1 ♂: \*Sweden, Sk. Maglehem, 10–17 VIII 1930, DG. – Described from and so far known only in European Russia: Sochi (TOBIAS 2010: 221).

*Microchelonus (M.) subarcuatilis* Tobias, 1986 – 1 ♀: \*Spain, Sabdrona / Grenada, 24 III 1986. 1 ♀: \*Bulgaria, Rhodopes Mts, Nikolova, 14 VIII 1976, AZ. 1 ♀: Armenia, Garni, 1200 m, 9 VII 1977, LZ. – Described from Moldova (TOBIAS 1986b: 12), reported from Hungary (PAPP 1996: 149), Armenia, Turkey, Kazakhstan, Turkmenistan, Uzbekistan (TOBIAS 1997a: 293).

*Microchelonus (M.) subcontractus* (Abdinbekova, 1971) – 1 ♀: Romania, Transylvania, Zilah, Felsőnyárló, 11 IX 2004, JP. – Widely distributed in the Palaearctic Region and here one of the frequent *Microchelonus* species.

*Microchelonus (M.) submarginalis* Tobias, 2000 – 1 ♂: \*Kazakhstan, Alma Ata, "mit *Allium* eingetragen V 1972, geschlüpft 14 VI 1973". 1 ♂: Asiatic Russia, West Altai Mts,

valley of river Charysh, Sentelek, 800 m, 21–23 VII 1993, AO. – Described from and so far known in Asiatic Russia: Primorski Kai (TOBIAS 2010: 196).

*Microchelonus (M.) subpusillus* Tobias, 1997 – 1 ♀: \*Romania, Transylvania, Harghita-megye (= county), Zeteváralja, Szencsed-patak, 3 VII 1993, AP. 1 ♀: \*Turkey, vil. Ankara, Camlidere, 24 VI 1996, IR. 1 ♀: \*Iran, Shiraz, 10 X 2011, MZ. – Described from Kazakhstan and Tadzhikistan (TOBIAS 1997a: 293), reported from “western Europe” (TOBIAS 2010: 146). New to three countries in the western Palaearctic Region.

*Microchelonus (M.) subsulcatus* (Herrich-Schäffer, 1838) – See its redescription in the section: Description... and redescription... of four *Microchelonus* species.

*Microchelonus (M.) talitzkii* Tobias, 1986 – 1 ♀: \*Hungary, Bakonyszűcs, 23 V 1963, JP. 1 ♀: \*Hungary, 10 km South of Eger, 20 VIII 1989, RD. 1 ♀: \*Macedonia, prov. Kratovo, Grizilevci, Žguri-pass, 880 m, 6–7 VI 1998, AO. 1 ♂: \*Bulgaria, Trakia, Stoykovo, 27 IV 1990, AP. 1 ♂: \*Turkey, Bursa: Golyazi, 15 VI 1989, AP. – Described from and hitherto known only in Moldava (TOBIAS 1986b: 12). New to four countries in the western Palaearctic Region.

*Microchelonus (M.) tauricus* Tobias, 1990 – 1 ♀: \*Bulgaria, Rila Mts, 6 IX 1928, LB. – Described from Ukraine: Crimea (TOBIAS 1990: 134), reported from Kazakhstan (TOBIAS 1997c: 692), Asiatic Russia: Tuva (TOBIAS 2010: 116) and Hungary (PAPP 1996: 150).

*Microchelonus (M.) transbaicalicus* Tobias, 1992 – 1 ♂: \*Hungary, Fertő-Hanság National Park, Dénesfa, fás legelő (=wooded pasture), 3 V 2000, JP. – Described from Asiatic Russia: Chita Region (TOBIAS 1992: 121). Hungary is its second known occurrence.

*Microchelonus (M.) tshatkalicus* Tobias, 2003 – 1 ♂: \*Slovakia, Pöstyén (= Piestani), VII 1914, LMé. – Described from and hitherto known only in Uzbekistan (TOBIAS 2010: 210).

*Microchelonus (M.) turgidus* Tobias, 1994 – 1 ♂: \*Croatia, Primorsko-Goranska county, Novi, Vinodolski, 13 VII 2001, OM. – Described from and so far known only in Mongolia and Asiatic Russia: Chita Region (TOBIAS 1994b: 136, 2010: 187).

*Microchelonus (M.) uniformis* Tobias, 1994 – 1 ♂: \*Hungary, Fertő-Hanság National Park, Dénesfa, fás legelő (= wooded pasture), 3 V 2003, AP. 1 ♂: \*Romania, Mehadia Mts, 5 km west from Godernu, 900 m, 19 VII 1993, AO. 1 ♂: \*Romania, Transylvania, Maros-megye (= county), Vármező, 2 VII 1999, AP. – Since its description known only in its locus typicus: Asiatic Russia, Chita Region (TOBIAS 1994b: 138). New to two countries in Europe. – Supposedly the name *M. uniformis* Tobias is a junior homonym of *Megachelonus uniformis* Baker, 1926 its generic status rearranged as *M. uniformis* by Shenefelt and, furthermore, he indicated: “Type should be reexamined” (SHENEFEELT 1973: 906). If the homonymy will be justified then the new name *M. vladtobiasi* is proposed (*M. tobiasi* is in force since 2008 by ZHANG *et al.*).

*Microchelonus (M.) uzbekistanicus* Tobias, 2002 – 1 ♀: \*Ukraine, Kárpátalja (= Zakarpate), Máramarosi k. k., Hoverla Mts, turistaház rom (= ruin of youth hostel), 1200–1700 m, 23 VII 1998, LZ. – Described from and hitherto known in Uzbekistan (TOBIAS 2002: 384, 2010: 167).

*Microchelonus (M.) verticalis* Tobias, 1995 – 1 ♀: \*Denmark, East Jutland, Glatved, 4 VII 2001, TM. – Described from and so far known in Asiatic Russia, Magadansk Region (TOBIAS 1995b: 68).

*Microchelonus (M.) vescus* (Kokouyew, 1899) (= *Chelonus minutus* Szépligeti, 1898 nec A. Costa 1884) – 1 ♂: \*Macedonia, prov. Kavardaci, Dobrište, 31 V 1998, AP. – Described by SZÉPLIGETI (1898: 209, 221) under the name *Chelonus minutus* jun. hom. from Hungary, by KOKOUYEW (1899: 62) under the name *Ch. vescus* nom. n. A fairly widely distributed species in the Palaearctic Region: France, Hungary, Bulgaria, Turkey, Azerbaijan, Asiatic Russia: Sakhalin (TOBIAS 2010: 53).

*Microchelonus (M.) xanthozona* (Alexeev, 1971) – 1 ♂: \*Hungary, Budapest: Hársbokorhegy, 7 VII 1952, EB. 1 ♂: \*Italia, Lucania, Lauria, 5 VIII 1949, Castellani Coll. – Described from Turkmenistan (ALEXEEV 1971: 414 in the genus *Chelonus*), reported from Kazakhstan, Uzbekistan, Mongolia (TOBIAS 2010: 94).

*Microchelonus (M.) xenia* Tobias, 2000 – 1 ♂: \*Hungary, Martonvásár, 17 VI 1955, FM. 1 ♂: \*Hungary, Kelebia: Földi erdő (= forest), 16 VII 1956, EB. 1 ♂: \*Hungary, Csömör, 18 VIII 1959, SO. 2 ♂: \*Hungary, Gyula: Szanazug, 5 VII 1963, EB. 1 ♀ (as *M. sulcatus* Jurine in PAPP 1999b: 62): \*Hungary, Siklós: Várhegy, 24 VI 1982, JP. 1 ♀ (as *M. sulcatus* Jurine in PAPP 1975: 317): \*Macedonia, Lake Dojan, Dojan, 150–500 m, 9–10 VI 1971, JP et SH. 1 ♀: \*Greece, prov. Viotia, Davlia, 19 V 2004, IR. 1 ♀: \*Turkey, Bursa, Golyazi, 15 VI 1989, AP. 1 ♀: Asiatic Russia, Primorski Krai, Hasan, 10 VIII 1978, DRK. 1 ♀: \*Mongolia, Čojbalsan aimak, 10 km SW from Somon Bajan-uul, 820 m, 18 VIII 1965, ZK. – Described from Asiatic Russia, Primorski Krai (TOBIAS 2000: 488). New to five countries in the Palaearctic Region.

*Microchelonus (M.) zaitzevi* (Tobias, 1972) – 1 ♂: \*Dania, East Jutland, Kiellerup, 7 km south of Mariager, 20 VIII 1986, TM. – Described from and so far known in Mongolia (TOBIAS 2010: 86).

#### DESCRIPTION OF TWO NEW AND REDESCRIPTION OF TWO KNOWN SPECIES OF *MICROCHELONUS*

Abbreviations applied after van ACHTERBERG (1993: 5 Figs H–K): Alar venation – *r* = transverse or first section of the radial vein, 3–*SR* and 4–*SR* = second and third sections of the radial vein, 1–*R1* = first section of the marginal vein. Eye – *OOL* = ocello-ocular line or shortest distance between hind ocellus and compound eye, *POL* = postocellar line or shortest distance between hind two ocelli. Surface sculpture terminologies after HARRIS (1979). – Structure terminologies after GAULD and BOLTON (1988: 58–74).

#### *Microchelonus (M.) iranicus* Tobias, 2001 (Figs 1–12)

*Microchelonus iranicus* TOBIAS, 2001: 162 ♀ (in key), type locality: “Iran / 14 VII 1961 / leg. KLAPPERICH”, female holotype in Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 11596. Type condition: antennae damaged, missing: tarsomeres 4–5 of right fore leg and fifth tarsomere of right hind leg. – TOBIAS 2010: 130 (in key) and 302 (Figs 7–9).

*Material examined* (3 ♀): 1.) Female holotype: its data see above. – 2.) Two females (in Budapest): Iran, prov. Alborz, Shahrestanak, taken with Malaise trap, 28 VI – 6 VII 2010, leg. A. Nadimi.

*Taxonomy* – The two females from Iran deviate in a few features from the holotype female, these deviations are treated as intraspecific variations, i.e. not meeting the requirement of the specific distinction. Subsequently first the deviations between the holotype female and the two females are presented; secondly the specific distinction between, besides *M. nigritibialis* (Abdinbekova)

and *M. kaszabi* Tobias (TOBIAS 2010: 129–130), *M. iranicus* and the two species: *M. flavonaevulus* (Abdinbekova) and *M. vitalii* Tobias is disclosed, these latter two species are also near to *M. iranicus*.

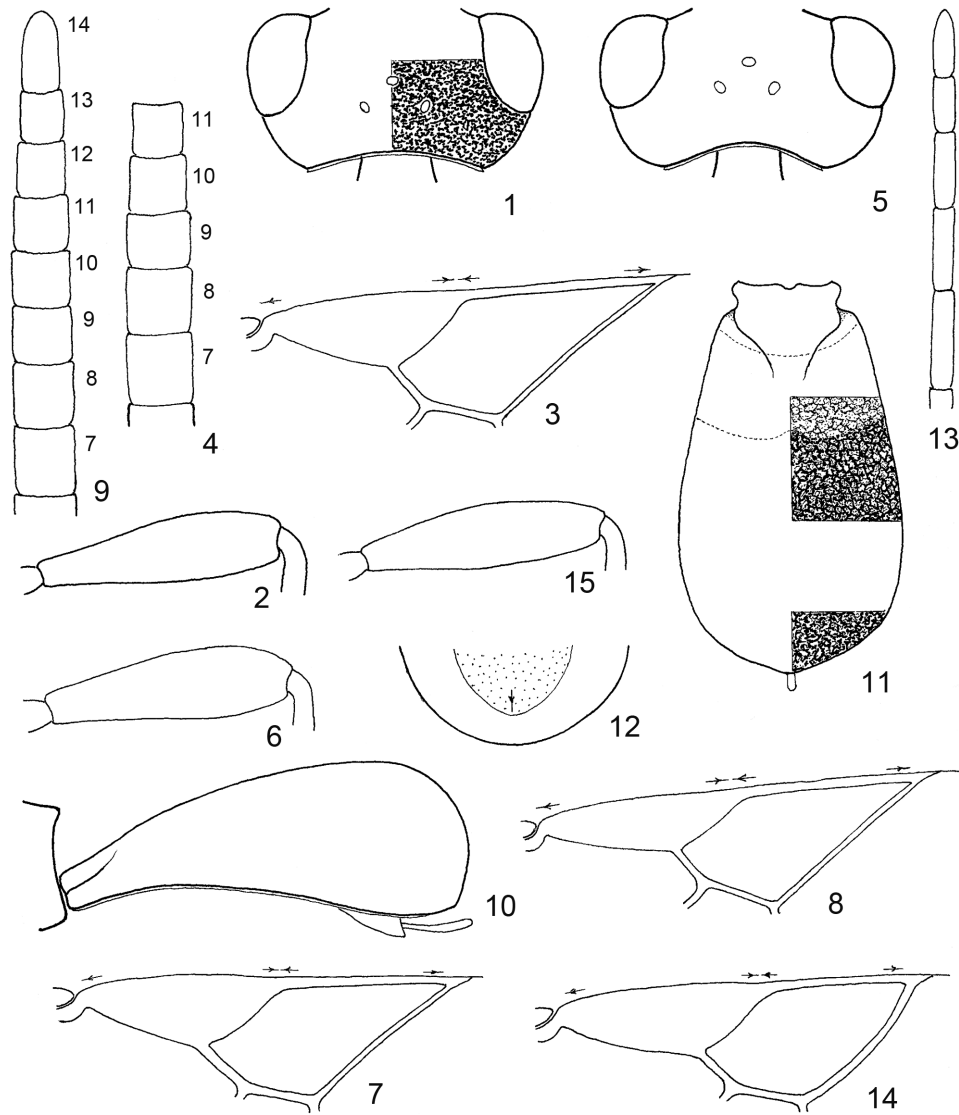
1.) Distinctive features between the holotype female and the two females of *M. iranicus* Tobias:

1 (2) Holotype female: Body 3.5 mm long (and not "3.3 mm"). Temple slightly more receded, eye in dorsal view 1.9 times longer than temple (Fig. 1). Anterior half of middle lobe of mesoscutum smooth, i.e. finely (sub-) punctate and shiny. Hind femur 3.8 times (and not 4 times) as long as broad distally (Fig. 2). Fore wing: pterostigma and *1-R1* equal in length (Fig. 3, see arrows). Scutellum polished. Carapace dark rusty to laterally and apically blackish, basally yellow, latero-apically somewhat less truncate (Fig. 10). Both flagelli damaged: right flagellum with 11 flagellomeres and left flagellomeres with one flagellomere, length to width of 11th flagellomere 11:10 (1.1 times longer), 10th flagellomere 11:12 (0.9 times longer) and 9th flagellomere 11:13 (0.8 times longer) (Fig. 4).

2 (1) Two females: Body 3.9–4.2 mm long. Temple slightly less receded, eye in dorsal view 1.5–1.6 times longer than temple (Fig. 5). Anterior half of middle lobe of mesoscutum punctate-rugulose, subshiny. Hind femur 3.3 times as long as broad distally (Fig. 6). Fore wing: pterostigma a bit longer (40:37, Fig. 8) to as long as *1-R1* (cf. Fig. 3). Scutellum subrugulose to rugulose, medially subshiny. Carapace black, basally pale yellow, latero-apically somewhat more truncate (cf. Fig. 29). Flagelli undamaged: length to width of 14th (apical) flagellomere 16:8 (twice longer), 13th (penultimate) flagellomere 10:9 (1.1 times longer), 12th flagellomere 11:10 (1.1 times longer), 11th flagellomere 11:12 (0.9 times longer), 10th and 9th flagellomeres 11:12.5 (0.88 times longer), i.e. flagellomeres 12–9 subcubic: just broader than long (Fig. 9).

In his key TOBIAS (2001: 160–163) placed the new species *M. iranicus* near to three other new species: *M. ferganicus*, *M. tadzhicus* and *M. erdosi*. In the monograph of the Palaearctic species of *Microchelonus* the species *M. iranicus* runs to *M. kaszabi* Tobias (TOBIAS 2010: 130). A re-examination of the holotype female and the two female specimens of *M. iranicus* revealed that it is also related, as mentioned before, to *M. flavonaevulus* (Abdinbekova) and *M. vitalii* Tobias. Their distinction is subsequently expounded:

2.) Taxonomic distinction between *M. iranicus* and *M. flavonaevulus*; their common features are the rugose upper part of head (occiput, vertex, frons), receded temple in dorsal view (Figs 1, 5). and yellow basal third of carapace; the female differ from each other as follows:



**Figs 1–15.** *Microchelonus* species. 1–12: *M. iranicus* Tobias (1–4: and 10–11: holotype female, 5–9: female): 1 = head in dorsal view indication of its rugosity, 2 = hind femur, 3 = distal part of right fore wing, 4 = flagellomeres 7–11 of ♀ holotype, 5 = head in dorsal view, 6 = hind femur, 7–8 = distal part of right fore wing, 9 = flagellomeres 7–14 of ♀, 10 = carapace in lateral view, 11 = carapace in dorsal view with indication of its sculpture, 12 = apico-ventral end of carapace. – 13–15: *M. flavonaevulus* (Abdinbekova) (♀): 13 = flagellomeres 10–14 of ♀, 14 = distal part of right fore wing, 15 = hind femur.

1 (2) Penultimate four flagellomeres short: flagellomere 13th 1.25 times (10:8), 12th and 11th 0.9 times (10:11, 11:12) and 10th 0.88 times (11:12.5) as long as broad, i.e. flagellomeres 12–10 subcubic, just broader than long (Figs 4, 9). Carapace in dorsal view slightly less belly and reticulate-rugose (Fig. 11). Fore wing: *1–R1* (almost) as long as pterostigma (Figs 3, 7, 8, see arrows). Hind femur broadest distally (Figs 2, 6). ♀: 4–4.2 mm. – Iran

*M. (M.) iranicus* Tobias, 2001

2 (1) Penultimate four flagellomeres long: flagellomere 13th 2.2 times (11:5), 12th 2.5 times (15:6), 11th 2.6 times (17:6.5) and flagellomere 10th 2.8 times (20:7) as long as broad (Fig. 13). Carapace in dorsal view slightly more belly and with striate sculpture (Fig. 28). Fore wing: *1–R1* one-fourth shorter than length of pterostigma (30:40, Fig. 14, see arrows). Hind femur broadest medially (Fig. 15). ♀: (3–)3.6–3.8 mm. – Western Palearctic Region

*M. (M.) flavonaeculus* (Abdinbekova, 1971)

3.) Taxonomic distinction between *M. iranicus* and *M. vitalii*; the females of these two species are near to each other by their short flagellomeres and yellow basal third of carapace, however, they are differentiated by the following features (*M. vitalii* known by its descriptions (TOBIAS 1997b: 299, 2010: 134):

1 (2) Fore wing: *1–R1* (almost) as long as pterostigma (Figs 3, 7, 8, see arrows). Head above rugose (Fig. 1). Carapace apico-ventrally weakly incurved: incurved part as long as half tarsomere 2 (Fig. 12, see arrow). Propodeum: transverse carina and lateral pair of tubercles indistinct. ♀: 4–4.2 mm. – Iran

*M. (M.) iranicus* Tobias, 2001

2 (1) Fore wing: *1–R1* short, 0.85 times as long as pterostigma (Fig. 30). Head above with transverse fine striolation (cf. Fig. 33). Carapace apico-ventrally incurved: incurved part as long as hind tarsomeres 2–3 combined (Fig. 31), i.e. ventral aperture of carapace shorter than carapace itself. Propodeum: transverse carina and lateral pair of tubercles weakly distinct. ♀: 3.3–4.1 mm. – Turkmenistan

*M. (M.) vitalii* Tobias, 1997

### ***Microchelonus (M.) moczari* sp. n.**

(Figs 16–24)

*Material examined* (2 ♀ + 1 ♂) – Holotype female and one female + one male paratypes: Iran, prov. Alborz, Karaj, 21–28 VIII 2010, leg. A. Nadimi. Holotype is in good condition: glued on card point by its mesosternum; two paratypes also in good condition: (1) ♀: tarsomeres 2–5 of right hind leg missing, (2) ♂: antennomeres 15–19 of right antenna missing, (3) both paratypes glued on card point. Holotype and two paratypes are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 12212 (holotype) and 12213 (female paratype) + 12214 (male paratype).

*Etymology* – The new species is dedicated to Prof. Dr. László Móczár, the well-known Hungarian specialist of aculeate wasps, professor emeritus at the University Szeged, doyen of the Hungarian entomologists and hymenopterists, celebrating his 100th birthday in December 2014.

*Description of the holotype female* – Body 2.8 mm long. Antenna as long as head and mesosoma combined and with 16 antennomeres. First flagellomere three times, further flagellomeres gradually shortening so that penultimate two flagellomeres 1.6 to 1.8 times as long as broad (Fig. 16). – Head in dorsal view transverse (Fig. 17), 2.2 times as broad as long, eye 1.7 times as long as temple, temple receded. OOL 1.2 times as long as POL, ocelli small and almost round. Eye in lateral view twice as high as wide, temple broadening ventrally and as wide as eye (cf. Fig. 72 see arrows). Malar space twice longer than basal width of mandible. Inner margin of eyes weakly converging ventrally. Head above weakly striolate-subrugulose, frons and face with concentric substriation, subshiny.

Mesosoma in lateral view 1.5 times as long as high; mesoscutum rugo-rugulose, before prescutellar furrow striate, otherwise mesosoma densely rugose. Propodeum scrobiculate, its transverse carina weak, pair of lateral tubercles also weak. Hind femur 3.3 times as long as broad medially (Fig. 18). Hind tibia and tarsus equal in length. Inner spur of hind tibia half as long as basitarsus. Hind basitarsus as long as tarsomeres 2–3 and 2/3rds of tarsomere 4 combined.

Fore wing about one-third shorter than body. Pterostigma (Fig. 19) 2.8 times as long as wide, issuing *r* distally from its middle, *r* 0.6 times as long as width of pterostigma; 3–*SR* as long as *r*, 2–*SR* 2.7 times longer than 3–*SR*; *SR*1 bent and ending far from tip of wing. 1–*R*1 short: half as long as pterostigma (Fig. 19, see arrows).

Carapace in dorsal view belly (Fig. 20), 1.6 times as long as broad somewhat posteriorly, its hind half rounded. Carapace in lateral view curved and 2.4 times as long as high posteriorly (Fig. 21, see arrows). Carapace apico-ventrally not incurved, i.e. ventral cavity of carapace as long as carapace itself. Sculpture of carapace: anterior half striate, posterior half rugose to rugulose, subshiny, interstriations uneven (Fig. 20). Ovipositor sheath about as long as hind basitarsus.

Antenna and body black. Palpi blackish. Basal fifth of carapace yellow. Ground colour of legs black to blackish with much dark yellow to yellow pattern on tibiae-tarsi 1–2 and tarsus 3. Wings almost hyaline, pterostigma dark brown, veins proximo-distally yellow to light brownish.

*Deviating features of the paratype female* – Body 2.9 mm long. Head in dorsal view 2.1 times as broad as long. Fore wing: pterostigma 2.6 times as long as wide, 1–*R*1 0.4 times as long as pterostigma (Fig. 22, see arrows).

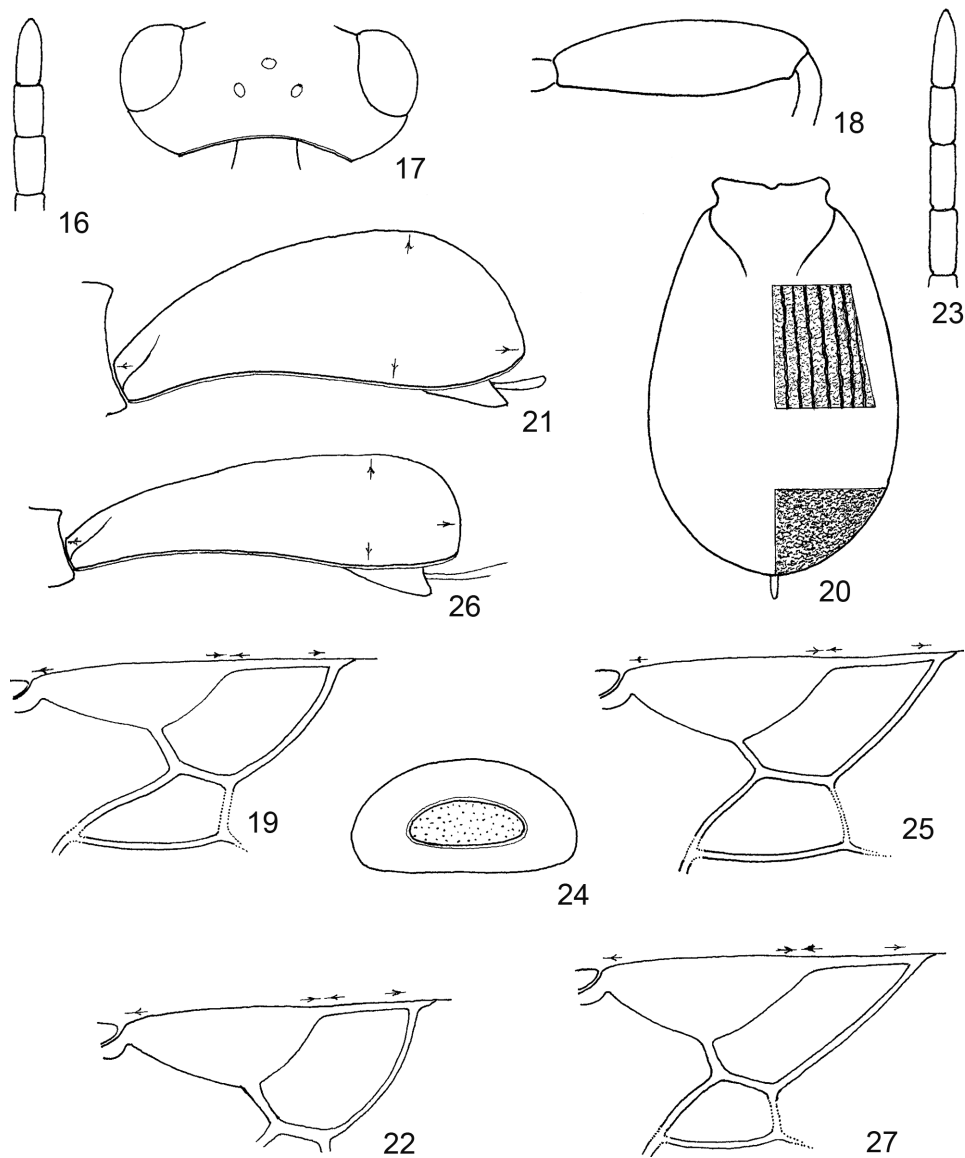
*Deviating features of the paratype male* – Body 2.5 mm long. Head in dorsal view 2.2 times as broad as long. Flagellomeres long, penultimate flagellomere twice as long as broad (Fig. 23). Dark yellow colour of carapace less distinct.

*Host* unknown.

*Distribution*: Iran.

*Taxonomic position* – The new species, *Microchelonus (M.) moczari*, is nearest to *M. (M.) tadzhicus* Tobias considering their common features: short 1–*R*1, malar space fairly long, half as long as height of eye, penultimate two flagellomeres longer than broad and carapace basally yellow; the two species are differentiated by the traits keyed:





**Figs 16–27.** *Microchelonus* species. 16–24: *M. moczari* sp. n. (16–21: holotype female, 22: paratype female, 23–24: paratype male): 16 = flagellomeres 12–14, 17 = head in dorsal view, 18 = hind femur, 19 = distal part of right fore wing, 20 = carapace in dorsal view with indication of its sculpture, 21 = carapace in lateral view, 22 = distal part of right fore wing, 23 = flagellomeres 11–14, 24 = apical aperture of male carapace. – 25–26: *M. tadzhicus* Tobias (♀): 25 = distal part of right fore wing, 26 = carapace in lateral view (after Tobias). – 27: *M. subbasalis* Tobias (♀): distal part of right fore wing (after Tobias).

- 1 (2) Female: Penultimate two flagellomeres 1.6–1.8 times as long as broad (Fig. 16). Head in dorsal view more transverse, 2.1–2.2 times as broad as long (Fig. 17). Fore wing: *SR1* bent, *1–R1* less than half (17:40) as long as pterostigma, pterostigma itself less wide: 2.6–2.8 times as long as wide and issuing *r* distally from its middle (Figs 19, 22, see arrows). Hind femur 3.3 times as long as broad medially (Fig. 18). Carapace in lateral view high posteriorly, 2.4–2.6 times as long as high (Fig. 21, see arrows). Male: Carapace in lateral view less high posteriorly, 3.1 times as long as high, apical aperture 2.2 times as wide as high (Fig. 24). ♀: 2.8–2.9 mm, ♂: 2.5 mm. – Iran  
**M. (M.) moczari** sp. n.
- 2 (1) Female: Penultimate two flagellomeres 1.3–1.5 times as long as broad. Head in dorsal view slightly less transverse, 1.9 times as broad as long. Fore wing: *SR1* almost straight, *1–R1* half as long as pterostigma, pterostigma itself wide: 2.3 times as long as wide and issuing *r* from its middle (Fig. 25, see arrows). Hind femur four times as long as broad. Carapace in lateral view less high posteriorly, 3.4 times as long as high (Fig. 26, see arrows). Male unknown. ♀: 2.5 mm. – Tadjhikistan  
*M. (M.) tadzhicus* Tobias, 2001

The new species runs to *M. (M.) subbasalis* Tobias in TOBIAS' (2010) key. Their common features include: short antenna, short *1–R1* of fore wing, mesosoma in lateral view 1.5–1.6 times as long as high; the two species are separated by the following traits:

- 1 (2) Female: Malar space short, eye 2.5 times as high as length of malar space. Penultimate flagellomere twice as long as broad (Fig. 16). Head in dorsal view more transverse, 2.1–2.2 times as broad as long (Fig. 17). Carapace in dorsal view 1.6 times as long as broad (Fig. 20). Fore wing: *r* and *3–SR* equal in length, *SR1* bent, pterostigma 2.6–2.8 times as long as wide and issuing *r* distally from its middle (Fig. 19, 22, see arrows). Male: Carapace in dorsal view 1.7 times as long as broad, its apical aperture 2.2 times as wide as high (Fig. 24). ♀: 2.8–2.9 mm, ♂: 2.5 mm. – Iran  
**M. (M.) moczari** sp. n.
- 2 (1) Female: Malar space long, eye twice as high as length of malar space. Penultimate flagellomere cubic, as long as broad. Head in dorsal view less transverse, twice as broad as long. Carapace in dorsal view 1.8 times as long as broad (cf. Fig. 40/2 in TOBIAS 2010: 291, on figure carapace twice as long as broad). Fore wing: *3–SR* almost twice longer than *r*, *SR1* straight, pterostigma 2.3 times as long as wide and issuing *r* from its middle (Fig. 27). Male unknown ♀: 2.5 mm. – Turkmenistan  
*M. (M.) subbasalis* Tobias, 2001

**Microchelonus (M.) spinulosus** sp. n.  
(Figs 32–40)

*Material examined* (16 ♀ + 7 ♂) – 1.) Holotype female: Spain, Canary Islands, Santa Cruz de La Palma, El Parente, 3 April 1998. 2.) 1 ♀ paratype: Spain, Canary Islands, Tenerife, Santa Ursula, La Quinta, 9 April 1993. 3.) 14 ♀ + 1 ♂ paratypes: Spain, Canary Islands, La Palma, Breña Baja, Los Cancajos, 1 March 1997: 1 ♀, 2 March 1997: 4 ♀, 28 March 1998: 1 ♂, 29 March 1998: 7 ♀ (4 ♀ paratypes in Budapest), 4 April 1998: 2 ♀. 4.) 1 ♂ paratype: Spain, Canary Islands, Tenerife, 2 km W of Buenavista, 8 April 1993. 5.) 1 ♂ paratype: Spain, Canary Islands, La Palma, Breña Baja, Monte Breña, 390–450 m, 3 March 1997. 6.) 1 ♂ paratype (in Budapest): Spain, Canary Islands, La Gomera, La Culala, 28 March 1999. 7.) 1 ♂ paratype: Spain, Canary Islands, Tenerife, Los Realjos, 14 December 1986. 8.) 1 ♂ paratype: Spain, Canary Islands, Tenerife, Puerto de La Cruz, Parque Taoro, 19 December 1997. 9.) 1 ♂ paratype: Spain, Canary Islands, Tenerife, Puerto de La Cruz, Parque Tajnaste, 20 December 1997. – Every type-specimen was taken by M. Koponen (Helsinki).

*Type depositories* – Holotype female and 11 ♀ + 6 ♂ paratypes are deposited in Department of Applied Biology, The University, Helsinki; 4 ♀ + 1 ♂ paratypes are in Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 10646 – 10649 (4 ♀ paratypes) and 10650 (1 ♂ paratype).

*Types condition* – Holotype and paratypes are in good condition, every specimen mounted by their more or less left lateral corporal side on pointed card; a few paratypes with missing corporal parts (flagellomeres, tarsomeres, tarsi, tibiae).

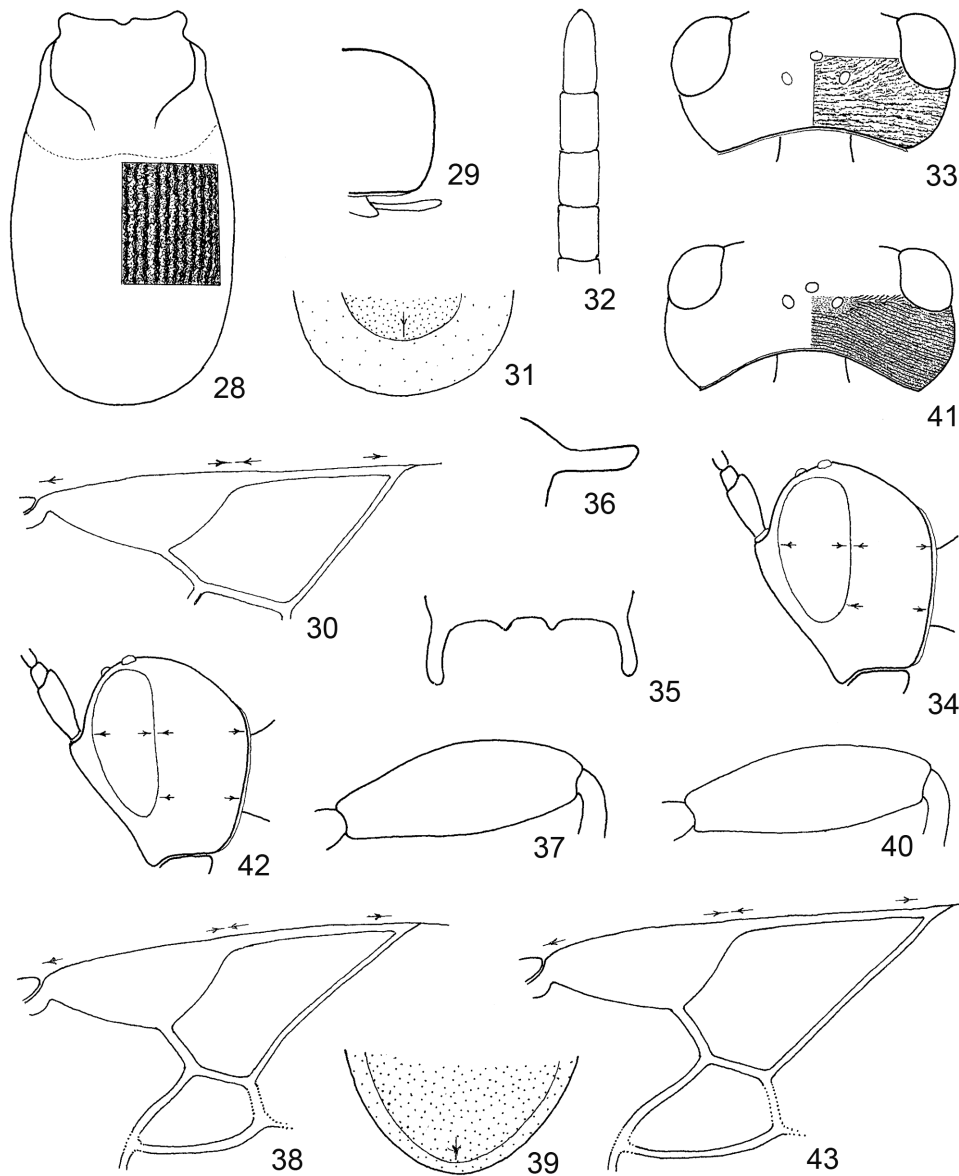
*Etymology* – The species name “spinulosus” refers to the unusually long pair of spinules on propodeum.

*Description of the holotype female* – Body 3.6 mm long. Antenna slightly longer than head + mesosoma combined and with 16 antennomeres. First flagellomere just three times as long as broad apically, further flagellomeres gradually shortening so that penultimate three flagellomeres 1.3 times longer than broad (Fig. 32). – Head in dorsal view transverse (Fig. 33) twice (60:29) as broad as long, eye one-fourth (or 1.2 times) longer than temple, temple rounded, occiput excavated. Ocelli forming a low triangle, OOL 1.2 times as long as POL. Eye in lateral view twice as high as wide, temple beyond eye one-sixth wider than eye (Fig. 34, see arrows). Malar space half as long as height of eye and twice longer than basal width of mandible. Clypeus 1.6 times as wide as high, its lower margin medially truncate. Face 2.4 times as wide as high. Hind tibia distally thickening, here nearly as broad as hind femur, inner spur of hind tibia half as long as basitarsus (Fig. 46).

Fore wing one-sixth shorter than body. Pterostigma (Fig. 38) wide, 2.3 times as long as wide, issuing *r* just distally from its middle, *r* a bit shorter than 3–SR (8:10), SR1 faintly curved and ending far before tip of wing; 1–R1 0.8 times (35:40) as long as length of pterostigma.

Carapace in dorsal view (Fig. 44) faintly globose, shiny, 1.6 times as long as broad posteriorly, pair of converging basal keels short, striation of carapace strong, parallel and with a few anastomoses, interstriations uneven, its hind declivous part strio-rugulose. Carapace in lateral view 2.5 times as long as high posteriorly (Fig. 45, see arrows). In ventral view carapace apically just incurved (Fig. 39, see arrow).

Antenna and body black. Palpi yellow, mandible yellow, apically darkening brown. Tegula black. Legs black to blackish with much light coloured pattern: trochanters, femora 1–2 apically and tibiae almost entirely brownish yellow, proximal ring of hind tibia and



**Figs 28–43.** *Microchelonus* species. 28: *M. flavonaeculus* (Abdinbekova) (♀): carapace in dorsal view with indication of its sculpture. – 29: *M. iranicus* Tobias (♀): posterior end of carapace. – 30–31: *M. vitalii* Tobias (♀): 30 = distal part of right fore wing (after Tobias), 31 = apico-ventral end of carapace. – 32–40: *M. spinulosus* sp. n. (32–39: holotype ♀, 40: paratype ♀): 32 = flagellomeres 11–14, 33 = head in dorsal view with indication of its striation, 34 = head in lateral view, 35 = spinules of propodeum in dorsal view, 36 = spinule of propodeum in lateral view, 37 = hind femur, 38 = distal part of right fore wing, 39 = apico-ventral end of carapace, 40 = hind femur. 41–43: *M. sulcatus* (Jurine) (♀): 41 = head in dorsal view, 42 = head in lateral view, 43 = distal part of right fore wing.

hind basitarsus nearly entirely pale yellow, tarsi yellowish with much blackish suffusion. Nearly basal half of carapace yellow, between keels black.

*Deviating features of the fifteen paratype females* – Body 3.1–3.8 mm long (3.1: 2 ♀, 3.2: 2 ♀, 3.3: 3 ♀, 3.4: 2 ♀, 3.5: 4 ♀, 3.6: 1 ♀, 3.8: 1 ♀). Head in dorsal view 1.8–2 times as long. Fore wing: pterostigma 2.2–2.3 times as long as wide. Hind femur 2.5–2.7 times as long as broad medially (Fig. 40). Carapace in dorsal view 1.6–1.7 times as long as broad, in lateral view 2.5–2.9 times as long as high (Figs 45, 47).

*Description of the five paratype males* – Similar to the female types. Body 3–3.5 mm long (3: 2 ♂, 3.1: 1 ♂, ♂, 3.4: 1 ♂, 3.5: 1 ♂). Antenna as long as head, mesosoma and almost carapace combined and with 21 antennomeres. First flagellomere 2.8–2.9 times and penultimate flagellomere 1.7–1.8 times as long as broad. Head in dorsal view twice as broad as long. Lateral pair of spinules on propodeum pointed (Figs 48, 49). Carapace in dorsal view less globose, 1.8–1.9 times as long as broad, its striation slightly denser (Fig. 50); carapace in lateral view 2.9–3 times as long as high (Fig. 51). Apical aperture of carapace 1.8 times (4 ♂, Fig. 52) and twice (1 ♂, Fig. 53) as wide as high.

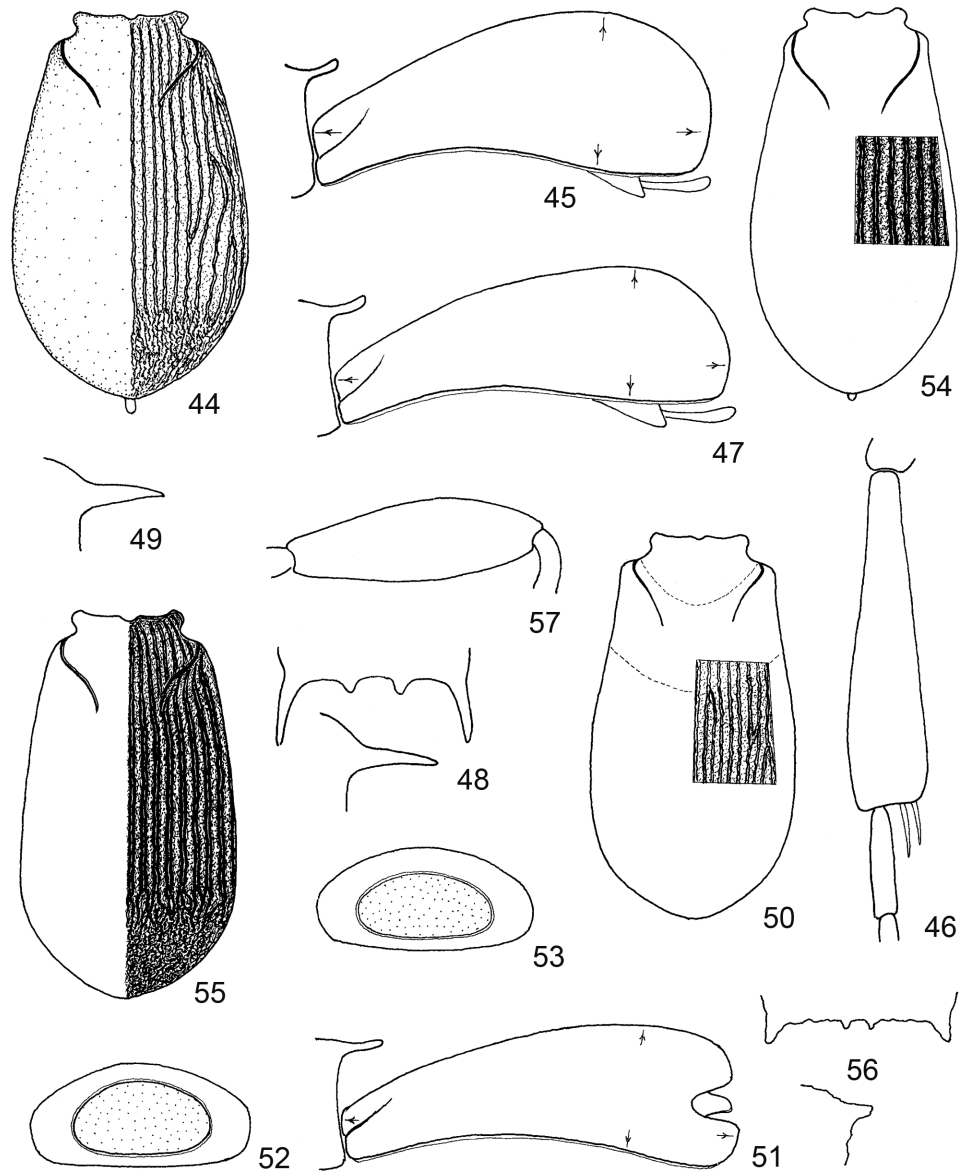
*Host unknown.*

*Distribution:* Spain, Canary Islands.

*Taxonomic position* – The new species, *Microchelonus spinulosus*, is nearest to *M. sulcatus* (Jurine) considering the form and striate sculpture of their carapace in dorsal view; the two species are distinguished by several features keyed:

1 (2) Striation of carapace less strong (Figs 44, 50). Mesoscutum rugo-rugulose and shiny, run of notaulix less roughly sculptured, scutellum medially smooth and shiny. Temple in dorsal view receded and never swollen, eye one-fourth longer than temple (Fig. 33). Propodeum laterally and dorsally with a pair of fairly long spinules (Figs ♀: 35, 36, ♂: 48, 49). Fore wing: pterostigma issuing *r* just distally from its middle, *r* a bit shorter than 3–SR (8:10), 1–R1 somewhat shorter than pterostigma (35:40, Fig. 38). Hind femur thick, 2.6–2.7(–3.1) times as long as broad (Figs 37, 40). Colour of legs vivid yellow. ♀: 3.1–3.8 mm, ♂: 3–3.5 mm. – Spain: Canary Islands  
**M. (M.) spinulosus** sp. n.

2 (1) Striation of carapace strong (Figs 54, 55). Mesoscutum rugulose-subrugulose and dull, run of notaulix roughly sculptured, scutellum with longitudinal rugosity. Temple in dorsal view rounded, eye as long as temple (Fig. 41). Propodeum in lateral view with a pair of tubercles (Fig. 56). Fore wing: pterostigma issuing *r* clearly distally from its middle, *r* and 3–SR equal in length, 1–R1 as long as pterostigma (40:40, Fig. 43). Hind femur 2.8–3.3 times as long as broad (Fig. 57). Yellow colour of legs with more or less brown to blackish suffusion. ♀: (3–)4–4.5 mm, ♂: (3.8–)4.2–4.5 mm. – Western Palearctic Region *M. (M.) sulcatus* (Jurine, 1807)



**Figs 44–57.** *Microchelonus* species. 44–53: *M. spinulosus* sp. n. (44–46 holotype ♀, 47: paratype ♀, 48–53: paratype ♂): 44 = carapace in dorsal view with indication of its sculpture, 45 = carapace in lateral view, 46 = hind tibia + basitarsus, 47 = carapace in lateral view, 48 = lateral pair of spinules on propodeum in dorsal and lateral view, 49 = lateral spinule in lateral view, 50 = carapace in dorsal view with indication of its sculpture, 51 = carapace in lateral view, 52–53 = apical aperture of male carapace. – 54–57: *M. sulcatus* (Jurine): carapace in dorsal view with indication of its sculpture (54: ♀, 55: neotype ♂), 56 = lateral pair of spinules on propodeum in dorsal and lateral view (♀), 57 = hind femur (♀).

*Microchelonus (M.) spinulosus* sp. n. is related to *M. (M.) silvestrii* Papp (PAPP 1999a) based on their distinctly striate and yellow basal carapace, the two species are separated by the features keyed:

- 1 (2) Lateral spinules of propodeum clearly twice longer than broad, in dorsal view parallel sided, i.e. not broadening basally (Figs 35, 36). Temple of female and male just less receded, eye one-fourth longer than temple (Fig. 33). Striation of carapace less strong (Figs 44, 50). Hind femur thick, 2.5–2.7(–3.1) times as long as broad medially (Figs 37, 40). Apical aperture of male carapace 1.8–2 times as wide as high (Figs 52, 53). Yellow macula extending on basal third of carapace. ♀: 3.1–3.8 mm, ♂: 3–3.5 mm. – Spain: Canary Islands **M. (M.) spinulosus** sp. n.
- 2 (1) Lateral tubercles of propodeum somewhat longer than broad basally, in dorsal view broadened basally (Fig. 58). Temple of female receded, eye almost twice longer than temple (Fig. 59); temple of male just more receded, eye one-fifth longer than temple (Fig. 60). Striation of carapace strong (Fig. 61). Hind femur (2.7–)3–3.3 times as long as broad somewhat distally (Fig. 62). Apical aperture of male carapace (1.8–)2–2.3 times as wide as high (Fig. 63). Yellow macula extending usually on anterior half of carapace. ♀: 3–4 mm, ♂: 3.2–3.4 mm. – Israel, Yemen

*M. (M.) silvestrii* Papp, 1999

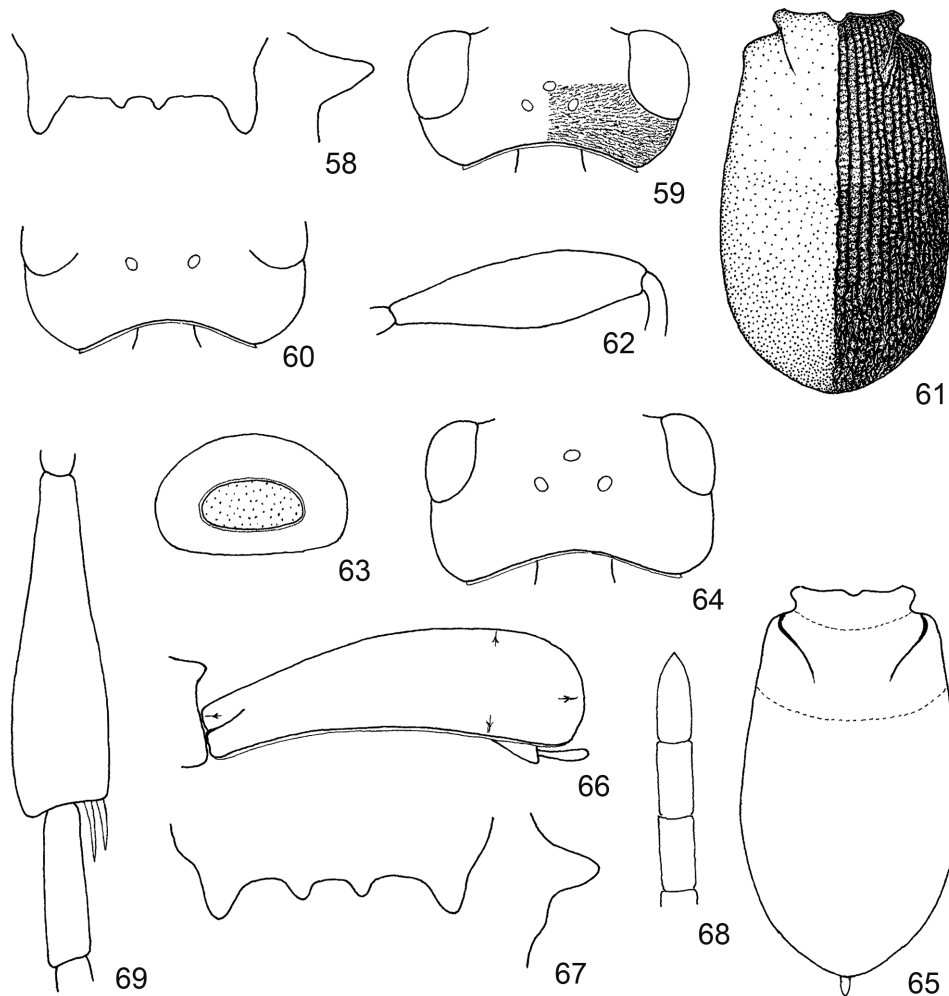
*M. spinulosus* sp. n. runs to *M. cypri* Tobias in TOBIAS' key (2010) and both share strong striation of carapace and distally (sub-)cubic flagellomeres; the two species are distinguished by the features keyed:

- 2 (1) Eye in dorsal view one-fourth longer than temple, temple receded (Fig. 33). Pair of spinules of propodeum long (Figs ♀: 35, 36, ♂: 48, 49). Carapace in dorsal view globose, its striation parallel and with a few anastomoses (Figs 44, 50). Carapace in lateral view 2.6–2.8 times as long as high posteriorly (Figs 47, 51). Scape black. ♀: 3.1–3.8 m. – Spain: Canary Islands **M. (M.) spinulosus** sp. n.
- 2 (1) Eye in dorsal view as long as temple, temple weakly rounded (Fig. 64). Pair of tubercles short as usually. Carapace in dorsal view less globose, 1.7 times as long as broad, apically somewhat pointed (Fig. 65), its winding striation with anastomoses. Carapace in lateral view 3.5 times as long as high posteriorly (Fig. 66). Scape brownish yellow. ♀: 3.6 mm. – Cyprus

*M. (M.) cypri* Tobias, 2001

*Microchelonus spinulosus* sp. n. is resembles of *M. incrassus* Papp both have thickened hind tibia (Figs 46, 69), however, the two species are clearly differentiated by several features:

1 (2) Propodeum laterally with a pair of long spinules, in dorsal view twice longer than broad and parallel-sided (Figs ♀: 35, 36, ♂: 48, 49). Carapace in dorsal view apically faintly pointed, longitudinally striate (Figs 44, 50). Temple in dorsal view receded (Fig. 33), in lateral view ventrally not



**Figs 58–69.** *Microchelonus* species. 58–63: *M. silvestrii* Papp (paratype ♀): 58 = lateral pair of spinules on propodeum in dorsal and lateral view, 59 = head in dorsal view, 60 = temple in dorsal view (♂), 61 = carapace in dorsal view with indication of its sculpture, 62 = hind femur, 63 = apical aperture of male carapace. – 64–66: *M. cypri* Tobias (♀): 64 = head in dorsal view, 65 = carapace in dorsal view, 66 = carapace in lateral view (figures 64–66 after Tobias). – 67–69: *M. incrassus* Papp (paratype ♀): 67 = lateral pair of spinules on propodeum in dorsal and lateral view, 68 = flagellomeres 12–14, 69 = hind tibia + basitarsus.



broadening, i.e. beyond eye evenly wide and one-sixth wider than eye (Fig. 34, see arrows). Penultimate flagellomere of female 1.3 times longer than broad (Fig. 32). Light colour of legs brownish yellow to yellow. ♀: 3.1–3.8 mm, ♂: 3–3.5 mm. – Spain: Canary Islands

**M. (M.) spinulosus** sp. n.

- 2 (1) Propodeum laterally with a pair of short tubercles, in dorsal view as long as broad basally, broadening basally (Fig. 67). Carapace areolate-rugose (Fig. 70). Temple in dorsal view rounded (Fig. 71), in lateral view ventrally broadening and beyond eye one-fourth wider (below) than eye (Fig. 72, see arrows). Penultimate flagellomere of female (1.6–)1.8–2 times as long as broad (Fig. 68). Light colour of legs pale yellow. ♀: 3.4–4 mm, ♂: 3.7–4 mm. – Finland *M. (M.) incrassus* Papp, 1992

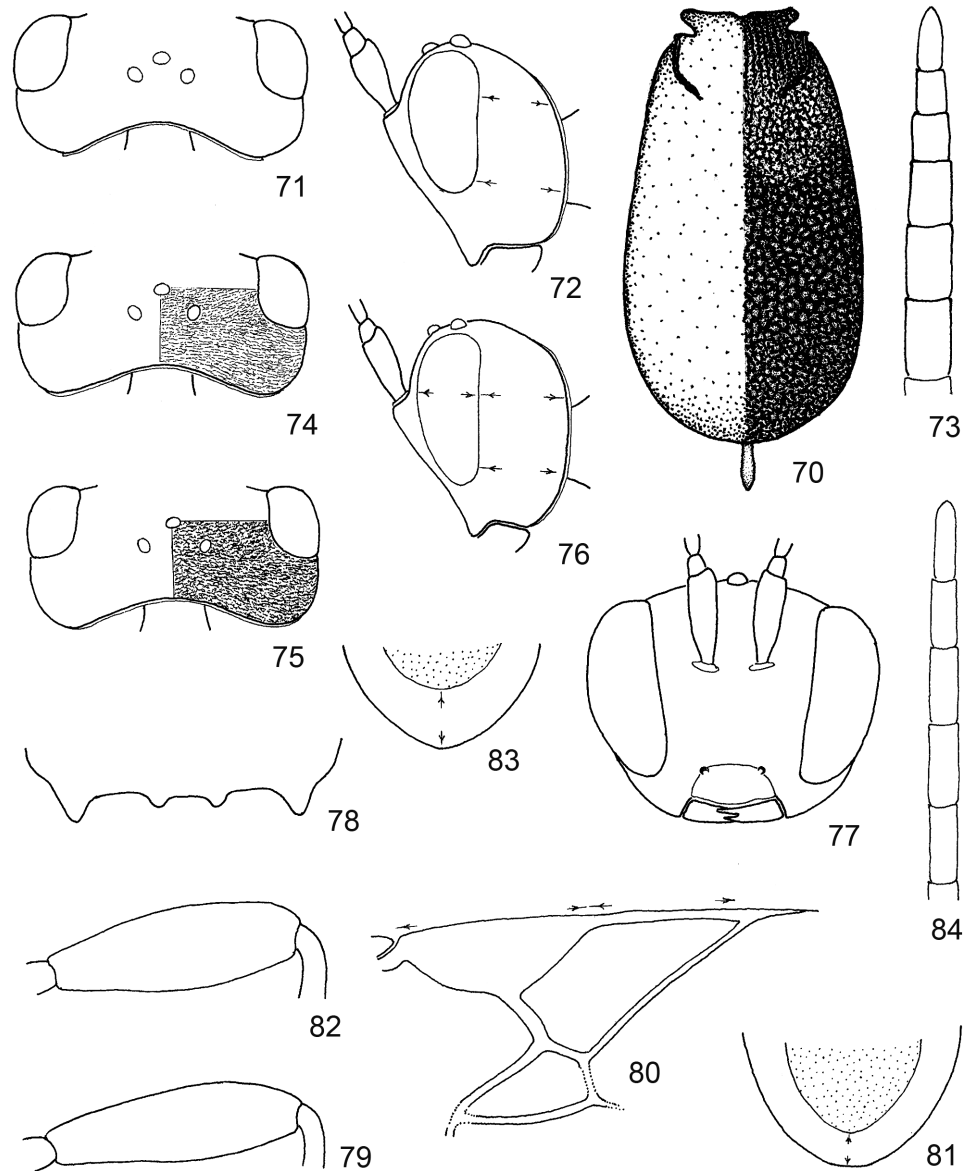
*Microchelonus spinosus* was described by McCOMB (1968: 7 in key, 118 description) distributed in the Nearctic Region. The species name “spinosus” refers to the specific feature of this species – a feature characterized by the describer himself as follows: “...propodeum coarsely rugose reticulate; the caudal margin of its dorsal face defined by a raised line, both pairs of projections very prominent, laminate, the outer pair noticeably larger than the inner pair.” (McCOMB 1968: 118). In the description, unfortunately, there is no hint to the measured length of the lateral spinule – hence no possibility for comparisons of the spinule measurements of the two species in question. The distinction of *M. spinosus* from the new species, *M. spinulosus*, is based on the original description of the former species (i.e. *M. spinosus* unknown in nature):

- 1 (2) Face very finely striate to substriate. Fore wing: pterostigma 2.2–2.3 times as long as wide (Fig. 38). Penultimate three flagellomeres 1.3 times longer than broad (Fig. 32). Scape black. ♀: 3.1–3.8 mm. – Spain: Canary Islands **M. (M.) spinulosus** sp. n.
- 2 (1) Face rugulose. Fore wing: pterostigma three times as long as wide (Fig. 146 in McCOMB 1968: 148 Plate 17). Penultimate three flagellomeres sub-cubic: slightly longer than broad (Fig. 69 l.c. Plate 8). Scape yellow. ♀: 3.7 mm. – U.S.A.: Ohio *M. (M.) spinosus* (McComb, 1968)

*Microchelonus (M.) subsulcatus* (Herrich-Schäffer, 1838)  
(Figs 73–83, 85–90)

*Chelonus subsulcatus* Herrich-Schäffer, 1838 ♂: in PANZER: Fauna Insectorum Germaniae 1829–1844 no. 28 description, p. 154 table 14: Figs *f* and *g*.

*Chelonella subsulcata* (Herrich-Schäffer, 1838): FAHRINGER 1934 ♂: 424 (in key) and 466 (repetition of the original description). TELENGA 1941: 306 (species incertae).



**Figs 70–84.** *Microchelonus* species. 70–72: *M. incrassus* Papp (paratype ♀): 70 = carapace in dorsal view with indication of its sculpture, 71 = head in dorsal view, 72 = head in lateral view. 73–83: *M. subsulcatus* (Herrich-Schäffer) (♀♂): 73 = flagellomeres 9–14 (♀), 74–75 = head in dorsal view (♀: 74, ♂: 75) with indication of its striation, 76 = head in lateral view (♀♂), 77 = head in frontal view (♀♂), 78 = lateral pair of spinules on propodeum in dorsal view (♀♂), 79 = hind femur (♀), 80 = distal part of right fore wing (♀), 81 = apico-ventral end of carapace (♀), 82 = hind femur (♀♂), 83 = apico-ventral end of carapace (♂), 84: *M. rondanus* Tobias (♀): flagellomeres 10–14.

*Microchelonus subsulcatus* (Herrich-Schäffer, 1838): SHENEFELT 1973: 904 (comb. n., depository of type-series unknown, literature up to 1941), PAPP 1996: 150 (taxonomy, faunistics).  
*Chelonus (Microchelonus) subsulcatus* (Herrich-Schäffer, 1838): YU *et al.* 2012.

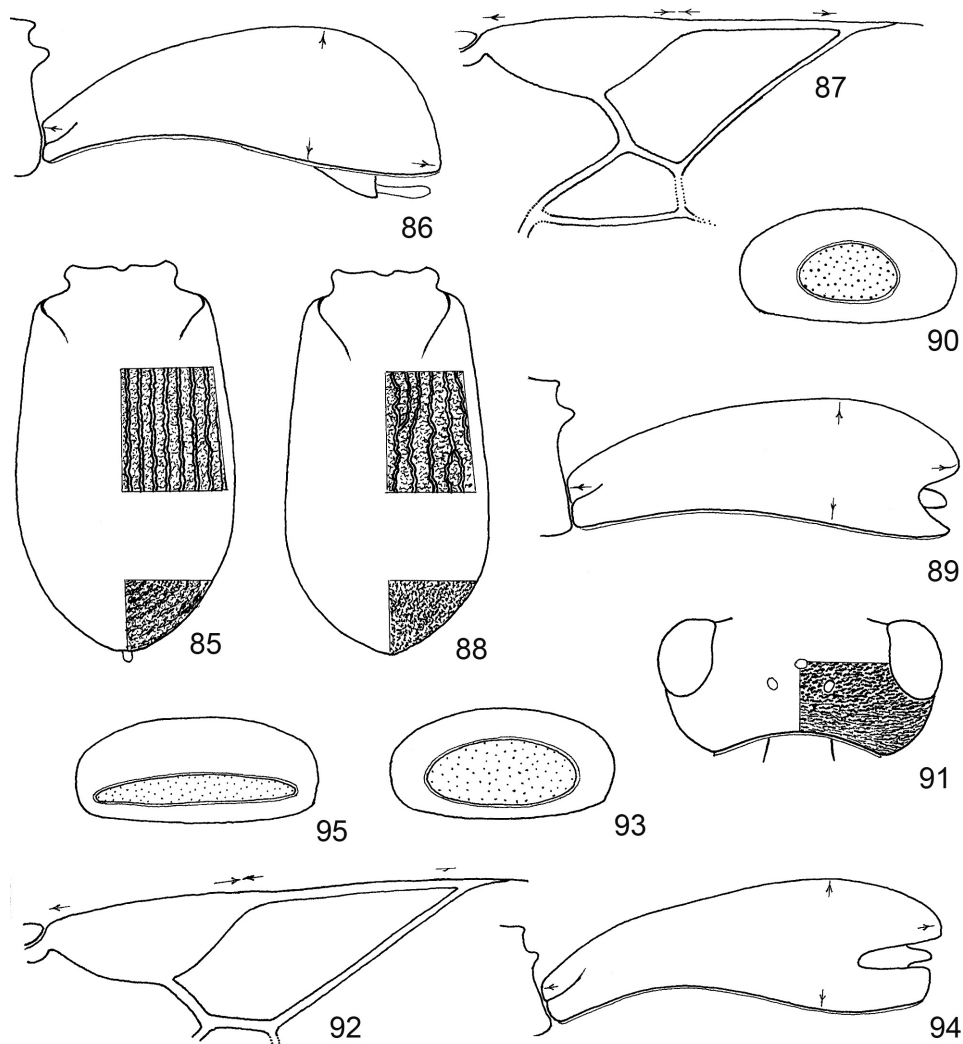
*Material examined* (2 ♀ + 1 ♂) – 1 ♀: Turkey, vil. Balikesir, Kapi Dagi Yarimadasi, Ocaklar, 2 June 2001, leg. Gy. Rozner. 1 ♀: Hungary, Petőfiszállás, Péteri-tó, 24 VI 1980, leg. J. Papp. 1 ♂: Sweden, Öland, Norra Udden, 20 VI 1989, leg. R. Danielsson. – In PAPP (1996: 150) the faunistic contributions (4 ♀ + 4 ♂ specimens from eight Hungarian collecting sites) published under the heading "Localities" are cancelled owing to my misunderstood identification.

*Taxonomic remark* – Originally the species *Chelonus subsulcatus* was described on the basis of the male form (HERRICH-SCHÄFFER 1838). The syntype series (its number unknown) of this species seems to be lost, i.e. type depository never indicated (cf. SHENEFELT 1973: 904). Furthermore, the original description of the species is, unfortunately, very short and hardly suitable for the recognition of "subsulcatus" unambiguously. FAHRINGER (1934: 424, 466) placed this species in his key for the males (p. 424) and presented a redescription, partly after HERRICH-SCHÄFFER (p. 466), under the name *Chelonella subsulcata* (HS.). The female form remained unknown and, furthermore, the male form, essentially, remained also unrecognizable. Hence until now the species "subsulcatus" was not emended from its nomen oblitum status. Worth to note that TELENGA (1941: 305–306) placed *Ch. subsulcatus* in the list of uncertain species (species nomen incertum). Since its description the species *Ch. subsulcatus* sank into oblivion. In HORN *et al.* (1990: 168) there is no hint as to the whereabouts of Herrich-Schäffer's Hymenoptera collection – albeit his butterfly (and bug) collections are described in detail. The redescription seems taxonomically recommended to distinguish *Ch. subsulcatus*, one of the oldest described species in the genus *Microchelonus*, from its nearest and deceptively similar species. Originally the species description was based on male (HERRICH-SCHÄFFER 1838), nevertheless, a female form was selected for the redescription because the female is more explicitly informative for identifying the specific traits in chelonines (and also in braconids in general). A male specimen was also distinguished matching morphologically with the short original description.

Although I based my redescription of *M. subsulcatus* on two female and one male specimens I did not designate a neotype viewing two considerations: 1.) It can not be excluded that there may turn up original Herrich-Schäffer's "Chelonus" material anywhere in a natural history institution and 2.) The neotype specimen should preferably come from Germany, possibly from the wide environment of Regensburg, certainly Herrich-Schäffer's collecting site.

*Description of the female.* – Body 4 mm long. Antenna short, as long as head and half of mesosoma combined and with 16 antennomeres. First flagellomere three times as long as broad, penultimate six flagellomeres gradually shortening: 9th flagellomere 1.6 times, 10th

flagellomere 1.5 times, 11th flagellomere 1.4 times, 12th flagellomere 1.25 times and 13th flagellomere 1.1 times as long as broad (Fig. 73). – Head in dorsal view transverse (Fig. 74), twice as broad as long, eye and temple equal in length, temple rounded and not protrud-



**Figs 85–95.** *Microchelonus* species. 85–90: *M. subsulcatus* (Herrich-Schäffer) (♀♂): 85 = carapace in dorsal view with indication of its sculpture (♀), 86 = carapace in lateral view (♀), 87 = distal part of right fore wing (♂), 88 = carapace in dorsal view with indication of its sculpture (♂), 89 = carapace in lateral view (♀), 90 = apical aperture of male carapace (♂). – 91–93: *M. rondanus* Tobias (♀♂): 91 = head in dorsal view with indication of its sculpture (♀), 92 = distal part of right fore wing (♀), 93 = apical aperture of male carapace (♂). – 94–95: *M. sulcatus* (Jurine) (♂): 94 = carapace in lateral view, 95 = apical aperture of male carapace.

ing. Temple in lateral view 1.4 times as wide as eye (Fig. 76, see arrows). Malar space somewhat longer than basal width of mandible (8:6), inner margin of eyes converging ventrally (Fig. 77). Head above (Fig. 74) and face with fine substriation, subshiny. OOL one-quarter longer than POL (Fig. 74).

Mesosoma in lateral view 1.2 times as long as high, scrobiculate to rugose. Scutellum longitudinally rugose. Transverse carina of propodeum distinct, ending laterally in a pair of tubercles (Fig. 78). Hind femur 3.1 times as long as broad distally (Fig. 79). Inner spur of hind tibia shorter than half basitarsus. Hind tibia and tarsus equal in length. Hind basitarsus as long as tarsomeres 2–4 combined.

Fore wing one-fourth shorter than body (60:80). Pterostigma (Fig. 80) wide, 2.5 times as long as wide and issuing *r* distally from its middle, *r* one-third longer than 3–SR (9:6), 2–SR 3.3 times longer than 3–SR, SR1 straight and twice as long as 2–SR (40:20); 1–R1 short, 0.75 times as long as pterostigma.

Carapace in dorsal view (Fig. 85) 1.7 times as long as broad slightly posteriorly, apically faintly pointed. Carapace in lateral view less bent, three times as long as high (Fig. 86, see arrows). Carapace apico-ventrally somewhat incurved, i.e. cavity of carapace nearly as long as carapace itself (Fig. 81, see arrows). Carapace fairly strongly striate, interstriations uneven-rugulose (Fig. 85). Ovipositor sheath concealed.

Body black. Antenna black. Ground colour of legs blackish to black with light coloured pattern: fore tibia brownish yellow, fore tarsus and middle tibia + tarsus also brownish yellow with blackish tint. Hind tibia basally dirty yellow. Wings subfamous, pterostigma brown, veins proximo-distally yellow to light brownish.

*Deviating features of the two females* – Body 3.8–4 mm long. Head in dorsal view just less than twice as broad as long (60:31). Eye minutely longer than temple (1 ♀: 16:15). Hind femur 2.9 times as long as broad (Fig. 82). Fore wing 1–R1 just shorter than pterostigma (1 ♀: 35:40)

*Description of the single male* – Similar to the female. Body 3.2 mm long. Head in dorsal view twice as broad as long (60:30), head above strio-subrugulose (Fig. 75). Hind femur slightly thicker: 2.9 times as long as broad medially (Fig. 82). Fore wing: pterostigma 2.3 times as long as wide, 1–R1 just shorter than pterostigma (35:40, Fig. 87 see arrows). Carapace in dorsal view twice as long as broad posteriorly (Fig. 88); carapace in lateral view 2.9 times as long as high and relatively less bent (Fig. 89, see arrows). Apical aperture of carapace 1.6 times as wide as high (Fig. 90). Carapace apico-ventrally incurved, incurved part almost as long as hind basitarsus (Fig. 83).

*Host unknown.*

*Distribution:* Turkey, Sweden. Yu *et al.* (2012): Germany, Hungary, Macedonia (the last two distributional data should be confirmed).

*Taxonomic position* – With the help of TOBIAS's key (2010) *M. subsulcatus* runs to *M. rondanus* Tobias viewing their striate carapace, short 1–R1; the distinction between the two species is as follows:

- 1 (2) Flagellomeres short, flagellomeres 11–12 gradually shortening: 1.4 and 1.25 times as long as broad and flagellomere 13 1.3 times as long as broad (9:6, Fig. 73). Temple in dorsal view rounded, transversely substriate (Fig. 74). Scutellum laterally rugo- to medially rugulose, dull. Fore wing: pterostigma issuing *r* distally from its middle, 1–R1 shorter than pterostigma (30:40, Fig. 80 see arrows). Apical aperture of male carapace 1.6

times as wide as high (Fig. 90). Tibiae with less brownish yellow pattern. ♀: 3.8–4 mm, ♂: 3.2 mm. – Germany, Sweden, Hungary, Macedonia, Turkey

*M. (M.) subsulcatus* (Herrich-Schäffer, 1838)

- 2 (1) Flagellomeres long, flagellomeres 11–12 three times and flagellomere 13 2.7 times as long as broad (Fig. 84). Temple in dorsal view receded, transversely rugo-rugulose (Fig. 91). Scutellum finely punctate, shiny. Fore wing: pterostigma issuing *r* from its middle, *1-R1* somewhat longer than pterostigma (45:40, Fig. 92 see arrows). Apical aperture of male carapace 2.3–2.4 times as wide as high (Fig. 93). Tibiae with much (vivid) yellow pattern. ♀: 3.3–4 mm, ♂: 3.5–3.7 mm. – Spain, Algeria

*M. (M.) rondanus* Tobias, 2008

The species *M. sulcatus* (Jurine) is also near to *M. subsulcatus* by their fairly strong striation of carapace (Figs 54–55, 85, 88) and by more or less incurved carapace apico-ventrally (Fig. 81, 83). The distinction between the two species is one by one separated by their female and male forms.

(1) Distinction of the female forms between *M. subsulcatus* and *M. sulcatus*:

- 1 (2) Striate sculpture of carapace somewhat less strong, interstriations less shiny (Fig. 85). Face with very fine sculpture. Inner margin of eyes converging ventrally (Fig. 77). Fore wing: *1-R1* short, pterostigma 1.3 times longer than *1-R1* (Fig. 80 see arrows). Fore tibia brownish yellow. ♀: 3.8–4 mm

*M. (M.) subsulcatus* (Herrich-Schäffer, 1838)

- 2 (1) Striate sculpture of carapace strong, interstriations more shiny (Fig. 54). Face rugulose, inner margin of eyes parallel. Fore wing: *1-R1* long, somewhat shorter than to as long as pterostigma (Fig. 43 see arrows). Fore tibia yellow. ♀: (3.6–)4–4.5 mm

*M. (M.) sulcatus* (Jurine, 1807)

(2) Distinction of the male forms between *M. subsulcatus* and *M. sulcatus*:

- 1 (2) Eye and temple in dorsal view equal in length, temple not protruding (Fig. 75). Carapace in lateral view less bent and three times as long as high posteriorly (Fig. 89 see arrows). Apical aperture of carapace elliptic and less wide (Fig. 90; cf. Fig. 154: 14: *g* in Herrich-Schäffer 1838). Fore tibia blackish with little yellowish pattern. ♂: 3.2 mm

*M. (M.) subsulcatus* (Herrich-Schäffer, 1838)

- 2 (1) Temple in dorsal view 1.3 times longer than eye, temple slightly protruding (Fig. 41). Carapace in dorsal view bent and 2.7–2.8 times as long as high posteriorly (Fig. 94). Apical aperture of carapace narrow and wide, eight times as wide as high (Fig. 95). Fore tibia yellow. ♂: (3.8–)4.2–4.5 mm

*M. (M.) sulcatus* (Jurine, 1807)

\*

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