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Revision of Szépligeti's Chelonus s. str. species described from Hungary (Hymenoptera: Braconidae: Cheloninae)

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Abstract – Nine species of *Chelonus* s. str. were described by SZÉPLIGETI from the historical Hungary in 1896 and 1898. Five species are redescribed: *Ch. bimaculatus* SZÉPLIGETI, 1896 (=*Ch. sculpturatus* SZÉPLIGETI, 1898, syn. n.), *Ch. elongatus* SZÉPLIGETI, 1898, *Ch. olgae* KOKUJEV, 1895 (=*Ch. schmiedeknechti* SZÉPLIGETI, 1898), *Ch. pannonicus* SZÉPLIGETI, 1896 and *Ch. szepligeti* DALLA TORRE, 1898 (=*Ch. rufiscapus* SZÉPLIGETI, 1896 nec PROVANCHER 1886). Synonymous names are as follows: *Ch. maculatus* SZÉPLIGETI, 1896 is a junior synonym of *Ch. annulatus* (NEES, 1816); *Ch. nigrator* SZÉPLIGETI, 1896 is a junior synonym of *Ascogaster quadridentata* WESMAEL, 1835; *Ch. suturatus* SZÉPLIGETI, 1898 is a junior synonym of *Ch. corvulus* MARSHALL, 1885. Lectotypes and paralectotypes of all SZÉPLIGETI's *Chelonus* s. str. taxa are designated. Checklist of further twelve *Chelonus* s. l. species described by SZÉPLIGETI belonging to the genus *Microchelonus* SZÉPLIGETI, 1908 is given. With 70 figures.

Key words – Hymenoptera, Braconidae, *Chelonus*, Szépligeti, Hungary, type designations, redescriptions.

INTRODUCTION

In 1896 and 1898 SZÉPLIGETI described nine *Chelonus* s. str. species from the historical Hungary or the zoogeographical district Carpato–Pannonicum. Of them four species remained valid either in their original or in new combination; taxonomically the species (with one exception) have been assigned correctly in the genus *Chelonus* JURINE, 1801. In this paper five *Chelonus* s. str. species are redescribed to clarify their taxonomic status; the rest of the species are identical either with species described earlier by other authors or are well and unambiguously recognizable on the basis of the books of TELENGA (1941) and TOBIAS (1986) widely used by entomologists.

In the subsequent checklist the *Chelonus* s. str. species originating from the historical Hungary and described by SZÉPLIGETI are enumerated in their alphabetical order with an indication of their taxonomic status (valid names are in italics):

Chelonus JURINE, 1801

bimaculatus SZÉPLIGETI, 1896 – valid.
elongatus SZÉPLIGETI, 1898 – valid.
maculatus SZÉPLIGETI, 1896 – junior synonym of *Chelonus annulatus* NEES, 1816.
nigrator SZÉPLIGETI, 1896 – junior synonym of *Ascogaster quadridentata* WESMAEL, 1835.
pannonicus SZÉPLIGETI, 1896 – valid.
rufiscapus SZÉPLIGETI, 1896 – nom. praeocc., nec Chelonus rufiscapus PROVANCHER, 1886; *Chelonus szepligetii* DALLA TORRE, 1898, new name for Ch. rufiscapus SZÉPLIGETI, 1896.
schmiedeknechti SZÉPLIGETI, 1898 – junior synonym of *Chelonus olgae* KOKUJEV, 1895.
sculpturatus SZÉPLIGETI, 1898 – junior synonym of *Chelonus bimaculatus* SZÉPLIGETI, 1896.
suturatus SZÉPLIGETI, 1898 – junior synonym of *Chelonus corvulus* MARSHALL, 1885.

Abbreviations – Ocelli: OOL = shortest distance between hind ocellus and compound eye; POL = shortest distance between hind two ocelli. Fore wing venation (after VAN ACHTERBERG 1993: 5): *r* =first section of the radial or transverse vein; *1–R1* = first section of the metacarpal vein; *3–SR* and *4–SR* = second and third sections of the radial vein.

TAXONOMICAL PART

Ascogaster quadridentata WESMAEL, 1835

Ascogaster quadridentata WESMAEL, 1835: 237 ♀♂, type locality: "environs de Bruxelles" (Belgium), female lectotype designated by S. R. SHAW (cf. HUDDLESTON 1984: 376); not examined. – SHENEFELT 1973: 828 (literature up to 1970).

Chelonus nigrator SZÉPLIGETI, 1896*b*: 303 (in Hungarian) and 373 (in German) (descriptions), ♂ (syntype series one male), type locality "Buccari" (Croatia), male holotype (present designation) in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined. – SHENEFELT 1973: 859 (as valid species, literature up to 1941). Synonymized by HUDDLESTON 1984: 376.

Type designation – Designation of the male holotype of *Ch. nigrator* SZÉPLIGETI: (first label) "Buccari / 16. VIII [1]889 / Biró L." (partly printed partly with handscript); (second label) "Croatia" (printed); third label is my lectotype card, fourth label is with the inventory number Hym. Typ. No. 534 (printed red, number handwritten by me); fifth and sixth labels are with the actual name *Ascogaster quadridentata* WESMAEL given by PAPP in 1979 and by HUDDLESTON in 1984, respectively.

Remarks – Male holotype of *Ch. nigrator* SZÉPLIGETI is in good condition: (1) pair of flagelli (left flagellum apically) damaged, (2) specimen pinned on a fairly thick needle hence mesosoma splitted along the suture between mesoscutum and scutellum.

Chelonus annulatus (NEES, 1816)

Sigalphus annulatus NEES, 1816: 265, ♀ (syntype series destroyed), type locality: "Habitat Berolini" (Germany).

Chelonus annulatus: NEES 1834: 288 (comb. n., redescription), ♀. – SHENEFELT 1973: 840 (literature up to 1971); TOBIAS 1972: 290, 1986: 312 (in keys, in Russian).

Chelonus maculatus SZÉPLIGETI, 1896*b*: 302 (in Hungarian) and 372 (in German) (descriptions), ♀ (syntype series: one "male" which is actually female!), type locality: Sátoraljaújhely (Hungary), female lectotype (present designation) in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined. – TELENGA 1941: 273 (as synonym of *Ch. decorus* MARSHALL, 1885); SHENEFELT 1973: 856 (as valid species); PAPP 1996: 136 (as synonym of *Ch. annulatus* NEES).

Type designation – Designation of the female lectotype of *Ch. maculatus*: (first label) "Hungaria" (printed) "Sátoraljaújhely VI. 27." (with my handscript), reverse the first label is the original label with the abbreviated form of the locality Sátoraljaújhely as "Újhely"; second label is my lectotype card; third label is with the inventory number Hym. Typ. No. 535; fourth label is with the actual name *Ch. annulatus* given by me.

Remarks – *Ch. annulatus* is easy to recognize by its apically somewhat pointed carapace in dorsal view as well as by its antero-posteriorly weakening sculpture of carapace (Fig. 10); see also the key-couplets 55(60)–60(56) of the genus *Chelonus* in TOBIAS 1986: 311–312.

Chelonus bimaculatus SZÉPLIGETI, 1896 (Figs 1–9, 13–15)

Chelonus bimaculatus SZÉPLIGETI, 1896*a*: 175 (in Hungarian) and 235 (in German), ♀ (syntype series: two females), type locality: "Buccari" (=Bakar, Croatia), female lectotype designated in SHENEFELT 1973: 844 (and one female paralectotype, present designation) in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined (the female paralectotype is renamed and emended as *Ch. asiaticus* TELENGA, 1941). – SHENEFELT 1973: 844 (literature up to 1954); TOBIAS 1986: 316 (in key, in Russian); PAPP 1995: 117–118 (in key and figs 11–15), 1996: 137.

Chelonus sculpturatus SZÉPLIGETI, 1898: 207 (description), 216 (in key) (in Hungarian) and 219 (description), 223 (in key) (in German), ♀♂ (syntype series: one female + two males, the two males lost), type locality: "Budafok" (district of Budapest, Hungary), female lectotype in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest, examined, **syn. n.** – SHENEFELT 1973: 866 (as valid species, literature up to 1971); TOBIAS 1986: 317 (as valid species in key); PAPP 1996: 141 (as valid species).

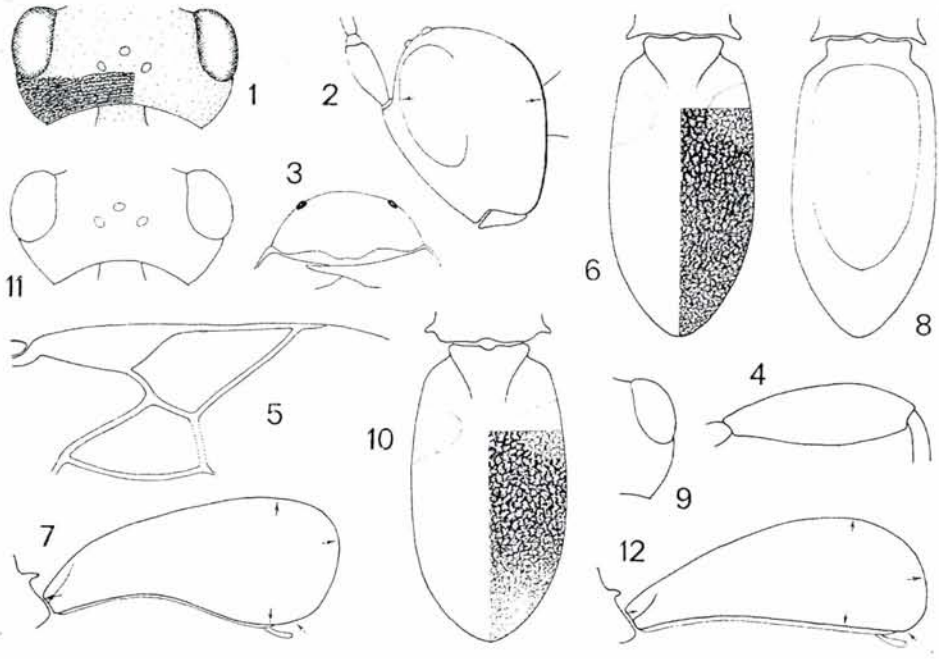
Type designations – Designation of the female lectotype of *Ch. bimaculatus* SZÉPLIGETI: (first label with my handscript) "Dalmatia / Buccari / 1893, Pável"; (second label reverse the first label) "Buccari P.93"; third label is my lectotype card; fourth label is with the inventory number "Hym.

Typ. No. 539"; fifth label is my identification label. – Female lectotype of *Ch. bimaculatus* SZÉPLIGETI is in good condition: (1) right antenna damaged, (2) left hind leg (except coxa + trochanter) missing.

Designation of the female lectotype of *Ch. sculpturatus* SZÉPLIGETI: (first label, printed) "Budafok Szépligeti"; second label is my lectotype card; third label is with the inventory number "Hym. Typ. No. 345"; fourth label is with the new name by SZÉPLIGETI: "Chelonus inanitus var. 9. sculpturatus Sz. / det. Szépligeti 1908"; fifth label is with the actual name *Chelonus bimaculatus* SZÉPLIGETI given by me. – Female lectotype of *Ch. sculpturatus* SZÉPLIGETI is in good condition; a little clot of stick made somewhat gluey and sticked the middle of right antenna to the pin.

Material examined – Seven females. Female lectotype of *Ch. bimaculatus* SZÉPLIGETI and female lectotype of *Ch. sculpturatus* SZÉPLIGETI + 5 females from 5 localities in Hungary and one locality in Croatia (Dalmatia).

Redescription of the female lectotype – Body 4.8 mm long. Antenna as long as head and mesosoma combined and with 22 antennomeres (left antenna). First flagellomere clearly twice as long as apically broad, flagellum distally slightly thickening and penultimate flagellomere trans-



Figs 1–12. 1–9. *Chelonus bimaculatus* SZÉPLIGETI, 1896: 1 = head in dorsal view with indication of its sculpture, 2 = head in lateral view, 3 = clypeus, 4 = hind femur, 5 = distal part of right fore wing, 6 = carapace in dorsal view with indication of its sculpture, 7 = carapace in lateral view, 8 = carapace in ventral view, 9 = right part of head in dorsal view. – 10–12. *Chelonus annulatus* (NEES, 1816): 10 = carapace in dorsal view with indication of its sculpture, 11 = head in dorsal view, 12 = carapace in lateral view

verse. Head in dorsal view (Fig. 1) transverse, 1.85 times as broad as long, eye 1.6 times as long as temple, temple receded, occiput excavated. Ocelli small, round, OOL one-fourth longer than POL. Eye in lateral view twice as high as wide, temple beyond eye wider than eye (Fig. 2, see arrows). Malar space just longer than basal width of mandible. Face twice as wide as high, inner margin of eyes just converging. Clypeus 2.2 times as wide below as high medially, its lower margin medially slightly excised (Fig. 3). Face rugose, clypeus fairly densely punctate: interspaces about as long as punctures. Vertex and occiput rugoso-striate (Fig. 1), temple rather rugose.

Mesosoma in lateral view 1.5 times as long as high, rugose, mesoscutum rugulose with rugose elements, notaulix indicated by somewhat rougher sculpture. Scutellum anteriorly almost smooth, posteriorly roughened. Propodeum with a strong transverse carina ending laterally in a pair of small teeth, otherwise propodeum areolate-rugose. Hind (right) femur 3.1 times as long as broad just distally from its middle (Fig. 4). Inner spur of hind leg shorter than half basitarsus. Hind basitarsus as long as tarsomeres 2–4 combined.

Fore wing one-third shorter than body. Pterostigma (Fig. 5) 3.3 times as long as wide, issuing radial vein distally from its middle; *3–SR* one-fifth longer than *r*, metacarp or *1–R1* one-fourth shorter than pterostigma.

Carapace in dorsal view (Fig. 6) twice as long as broad posteriorly, apically bluntly pointed and its posterior half laterally somewhat compressed. Pair of basal keels short and rather weak, restricted to declivous basal part of carapace. Carapace on its basal third striate, otherwise rugose to subrugose-rugulose (Fig. 6). Carapace in lateral view posteriorly high, 2.3 times as long as high behind and distinctly incurved ventrally (Fig. 7, see arrows). In ventral view aparture of carapce clearly one-fourth shorter than carapace itself (Fig. 8). Ovipositor short.

Ground colour of body black. Scape black with faint brownish tint, flagellum black. Palpi dark brown. Mandible yellow, apically blackish. Tegula black. Carapace basally with a pair of yellow maculae. Legs black with brownish tint; femora apically, tibiae 1–2 and every basitarsi brownish yellow, hind tibia brownish black with a proximal yellow ring, tarsi brownish to brown. Wings subfumous, pterostigma brown, veins light brown to brown, carpal vein yellow.

The female lectotype of *Ch. sculpturatus* SZÉPLIGETI is identical with *Ch. bimaculatus* SZÉPLIGETI except the basal pair of maculae of carapace, which are small and restricted to the lateral part of carapace.

Male and host unknown.

Variabilities of the five females – Body 3.8–4.4 mm long (3.8: 1 ♀, 4: 1 ♀, 4.2: 1 ♀, 4.4: 1 ♀). Eye in dorsal view 1.3 times as long as temple (1 ♀, Fig. 9). Carapace less pointed apically (2 ♀♀, Fig. 13). Pair of yellow maculae of carapace missing (3 ♀♀).

Distribution – Croatia (Dalmatia), Hungary, Ukraine, European part of Russia.

Remarks – Chelonus bimaculatus SZÉPLIGETI is nearest to *Ch. annulatus* (NEES) considering their carapace bluntly pointed apically and posterior half of their carapace weakly compressed laterally; the two species are distinguished by the following features:

1 (2) Hind third to fourth of carapace with weakening sculpture, carapace here frequently uneven to almost smooth and more or less shiny (Fig. 10). Temple receded in dorsal view (Fig. 11). Antenna with (30–)33–34 antennomeres. Carapace less incurved in lateral view (Fig. 12, see arrows). Tegula

entirely to partly yellow, hind femur almost reddish yellow to almost black. Female and male: 3.2–5 mm. – Palaearctic Region
Ch. annulatus (NEES, 1814)

2 (1) Hind half of carapace rugose to subrugose (Fig. 6). Temple rounded in dorsal view (Fig. 1). Antenna with 22–23 antennomeres. Carapace more incurved in lateral view (Fig. 7, see arrows). Tegula black, hind femur also black, apically reddish yellow to rusty. Female: (3.8)–4.2–4.8 mm. – Europe
Ch. bimaculatus SZÉPLIGETI, 1896

Chelonus bimaculatus SZÉPLIGETI is related to *Ch. szepligetii* DALLA TORRE considering also the characteristic form of their carapace, however, they are clearly separable by the following features:

1 (2) Carapace distinctly incurved in lateral view (Fig. 7), aperture of carapace in ventral view clearly one-fourth shorter than carapace itself (Fig. 8). Temple strongly rounded in dorsal view (Fig. 1). *1–R1* one-fourth shorter than pterostigma (Fig. 5). Antenna black, hind femur black with brownish tint. Female: (3.8–)4.2–4.8 mm. – Europe *Ch. bimaculatus* SZÉPLIGETI, 1896

2 (1) Carpace less incurved in lateral view (Fig. 60, see arrows), aperture of carapace in ventral view nearly as long as carapace itself (Fig. 61). Temple rounded in dorsal view (Fig. 54). *1–R1* a bit longer than pterostigma (Fig. 58, see arrows). Antenna rusty and distally with increasing greyish suffusion. Hind femur reddish yellow with blackish tint. Female: 4.3–4.5 mm. – Hungary (= *Ch. rufiscapus* SZÉPLIGETI) *Ch. szepligetii* DALLA TORRE, 1898

Chelonus bimaculatus SZÉPLIGETI is reminiscent of *Ch. sagittatus* PAPP in their strongly rounded to receded temple in dorsal view; however, the two species are clearly distinguished by the features keyed:

1 (2) Carapace relatively deeply incurved in lateral view and a bit more than twice as long as high posteriorly (Fig. 14, see figures). Hind fourth of carapace in dorsal view with weakening sculpture, i.e. rugulose to uneven, carapace behind rounded (Fig. 15). Antenna with 31–32 antennomeres. Tegula yellow. Female: 4.2–4.3 mm, male: 5 mm. – Mongolia
Ch. sagittatus PAPP, 1971

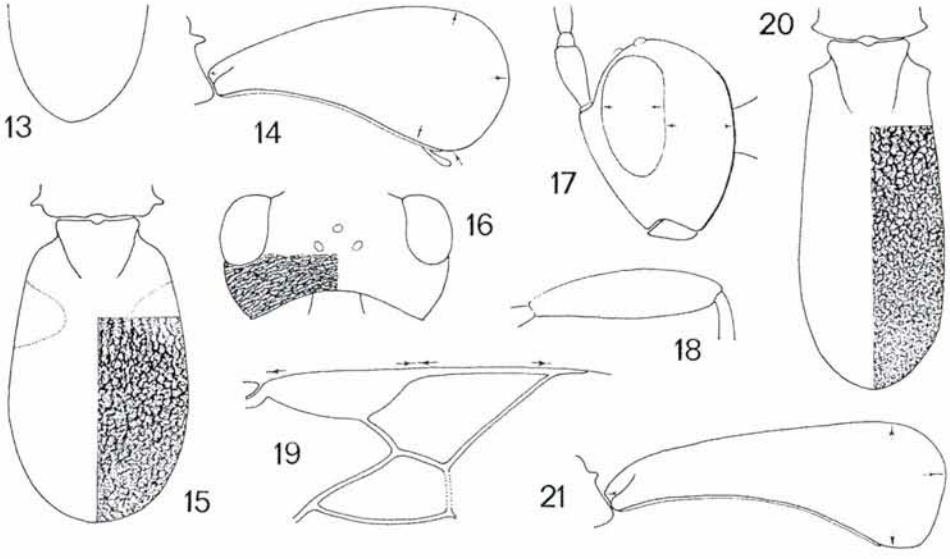
2 (1) Carapace less deeply incurved in lateral view and 2.3 times as long as high posteriorly (Fig. 7). Hind half of carapace in dorsal view rugose to subrugulose, carapace behind pointed (Fig. 6). Antenna with 22–23 antennomeres. Tegula black. Female: (3.8–)4.2–4.8 mm. – Europe

Ch. bimaculatus SZÉPLIGETI, 1896

Chelonus corvulus MARSHALL, 1885

Chelonus corvulus MARSHALL, 1885: 116 (in key) and p. 127 (description), ♀♂ (syntype series: four females and six males), type localities: Leicestershire and Barnstaple (England), lectotype and paralectotype designations are needed. – SHENEFELT 1973: 848 (literature up to 1971); TOBIAS 1972: 290 (in key), 1986: 315 (in key).

Chelonus suturatus SZÉPLIGETI, 1898: 208 (description) and 213 (in key) (in Hungarian), 219 (description) and 225 (in key) (in German), ♀ (syntype series: one female), type locality: Budapest (Hungary), female lectotype (present designation) in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined. – SHENEFELT 1973: 869 (as valid species); TOBIAS 1986: 315 (supposed synonymization with *Ch. corvulus* applying the name "?suturalis"). Synonymized by PAPP 1996: 138.



Figs 13–21. 13–15. *Chelonus bimaculatus* SZÉPLIGETI, 1896: 13 = posterior end of carapace in dorsal view. – *Chelonus sagittatus* PAPP, 1971: 14 = carapace in lateral view, 15 = carapace in dorsal view with indication of its sculpture. – 16–21. *Chelonus elongatus* SZÉPLIGETI, 1898: 16 = head in dorsal view with indication of its sculpture, 17 = head in lateral view, 18 = hind femur of male, 19 = distal part of right fore wing, 20 = carapace in dorsal view with indication of its sculpture, 21 = male carapace in lateral view

Type designation – Designation of the female lectotype of *Chelonus suturatus* SZÉPLIGETI: (first label) "Budapest / Zugliget" (Hungary); (second label) "[18"]"97. VI. 7 / Szépligeti"; third label is my lectotype card; fourth label is with the inventory number Hym. Typ. No. 535; fifth label is with the actual name *Ch. corvulus* MARSHALL given by me. – Lectotype is in good condition.

Remarks – The female lectotype is identical with *Ch. corvulus* MARSHALL. However, its carapace bears a suture between the imaginary second and third tergites; the species name by SZÉPLIGETI refers to this feature. The suture is certainly an atavistic phenomenon and not of specific peculiarity. See also the Figs 54–56 of *Ch. corvulus* MARSHALL in PAPP 1997: 12. The species can be identified with certainty using the help of key by TOBIAS (1986: 307–317).

Chelonus elongatus SZÉPLIGETI, 1898
(Figs 16–24)

Chelonus elongatus SZÉPLIGETI, 1898: 208 (description), 216 (in key) (in Hungarian) and 220 (description), 228 (in key) (in German), ♂ (syntype series: one male), type locality: "Grebenácz" (Serbia), male lectotype in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined. – SHENEFELT 1973: 850 (literature up to 1958); TOBIAS 1986: 313 (in key, in Russian); PAPP 1995: 124 (in key and figures), 1996: 139 (designation of the male lectotype).

Designation of the male lectotype – (First label) "Grebenácz" (Serbia); (second label reverse the first label) "372/87" (old inventory number); third label is my lectotype card and the fourth label is with the actual inventory number "Hym. Tym. No. 533". – The male lectotype is in good condition: (1) right antenna damaged and with 26 antenomeres; (2) distal three-fourths of right fore wing missing; (3) left fore wing at middle of costal vein damaged.

Material examined – One female and 12 males. One male (lectotype): Serbia, Grebenac. One female + 4 males: Romania, Independenta. Eight males from 7 localities in Hungary. One male from one locality in Serbia (Voivodina). Two males from 2 localities in Mongolia.

Redescription of the male lectotype – Body 6 mm long. Antenna as long as head, mesosoma and fore half of carapace combined, with 33 antennomeres (left antenna damaged and with 26 antennomeres). First flagellomere 2.5 times and penultimate flagellomere subcubic, i.e. just longer than broad to 1.6 times as long as broad apically. Head in dorsal view (Fig. 16) transverse, 1.85 times as broad as long, eye somewhat longer than temple, temple rounded, occiput excavated. Ocelli small and round, OOL slightly longer than POL. Eye in lateral view almost twice as high as wide, temple beyond eye widening ventrally and slightly wider than eye (Fig. 17, see arrows). Malar space somewhat longer than basal width of mandible. Face 1.7 times as wide as high, inner margin of eyes parallel. Clypeus 1.5 times as wide below as high medially, its lower margin medially truncate. Face rugose, clypeus densely and finely punctate. Vertex and occiput transversely rugoso-striate (Fig. 16), temple also rugoso-striate.

Mesosoma in lateral view 1.7 times as long as high, rugose to areolate-rugose, notaulix distinct by somewhat rougher sculpture. Scutellum with strong punctures, interspaces shiny. Propodeum areolate-rugose, transverse carina less distinct and ending laterally in a less large tubercle. Hind fe-

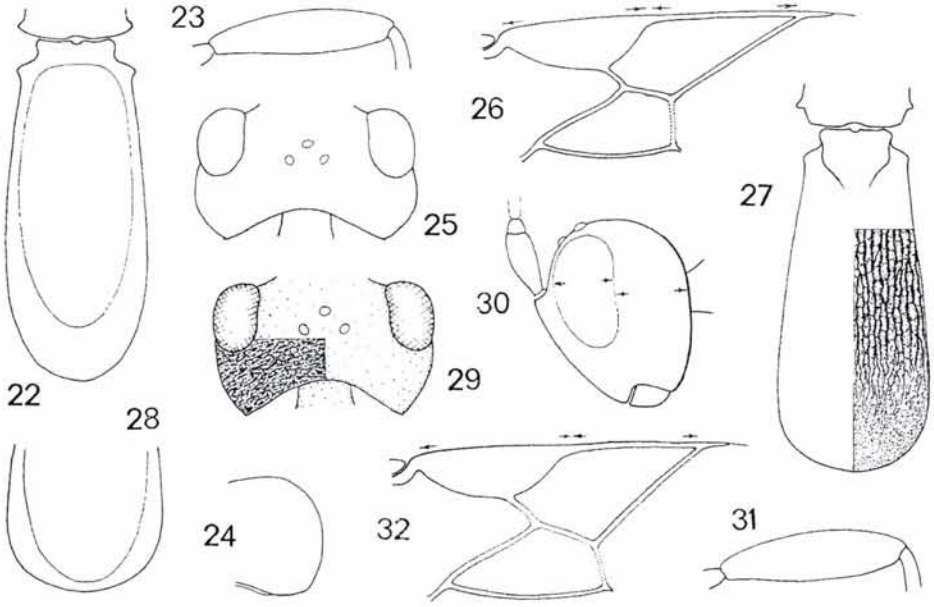
mur 3.8 times as long as broad medially (Fig. 18). Inner spur of hind tibia half as long as basitarsus. Hind basitarsus as long as tarsomeres 2–4 combined.

Fore wing clearly one-third shorter than body. Pterostigma three times as long as wide and isuing *r* distally from its middle; *3–SR* as long as *r*, *1–R1* a bit shorter than pterostigma (Fig. 19, see arrows).

Carapace in dorsal view (Fig. 20) 2.4 times as long as broad, almost paralallel-sided, apically rounded. Pair of basal keels extending to anterior fifth of carapace. Carapace antero-posteriorly strongly rugose to rugose, weakly rugose (Fig. 20). Carapace in lateral view 2.8 times as long as high behind, its hind end rather truncate and ventrally incurved (Fig. 21, see arrows). Aparture of carapace in ventral view nearly as long as carapace itself (Fig. 21).

Ground colour of body black. Antenna black, scape with faint brownish tint. Mandible and palpi brownish yellow. Tegula blackish. Carapace with brownish tint. Ground colour of legs brown to dark brown, coxae blackish to black, fore and middle femora + tibiae reddish yellow, middle femur + tibia apically darkening, hind tibia proximally and basitarsi 2–3 pale yellow; fore tarsus brownish yellow, middle and hind tarsi brownish. Wings hyaline, pterostigma brown, veins yellowish to brownish.

Description of the female – Similar to the male. Body 6 mm long. Head in dorsal view 1.8 times as broad as long. Hind femur 4.1 times as long as broad medially (Fig. 23). Pterostigma issuing *r* from its middle. Carapace in lateral view behind somewhat less truncate (Fig. 24). Carapace basally pale yellow.



Figs 22–32. 22–24. *Chelonus elongatus* SZÉPLIGETI, 1898: 22 = carapace in ventral view, 23 = hind femur of female, 24 = posterior end of female carapace in lateral view. – 25–28. *Chelonus wesmaeli* CURTIS, 1837: 25 = head in dorsal view, 26 = distal part of right fore wing, 27 = carapace in dorsal view with indication of its sculpture, 28 = posterior end of carapace in ventral view. – 29–32. *Chelonus olgae* KOKUJEV, 1895: 29 = head in dorsal view with indication of its sculpture, 30 = head in lateral view, 31 = hind femur of female, 32 = distal part of right fore wing

Variabilities of the 12 males – Body 4.8–6 mm long (4.1: 1 ♂, 5: 2 ♂♂, 5.5: 4 ♂, 5.8: 3 ♂, 5.9: 1 ♂, 6: 1 ♂). Antenna with 31–42 antennomeres (31: 1 ♂, 35: 3 ♂, 42: 1 ♂; further males with damaged antennae). Head in dorsal view 1.8–1.85 times as broad as long. Hind femur 3.8–4 times as long as broad medially. The two Mongolian males with a pair of yellow maculae.

Remarks – *Chelonus elongatus* SZÉPLIGETI is nearest to *Ch. wesmaeli* CURTIS considering their elongate carapace, the two species are distinguished by the following features:

1 (2) Head in dorsal view 1.8–1.85 times as broad as long, temple rounded (Fig. 16). Antenna with (31–)35–42 antennomeres. Pterostigma a bit longer than *1–R1*, *r* as long as *3–SR* (Fig. 19, see arrows). Carapace in dorsal view longitudinally rugose to rugose, weakly rugose and somewhat less evenly broadening posteriorly (Fig. 20). Carapace more incurved ventro-apically (Figs 21–22, 24). Carapace usually black, less frequently with a (basal pair) of yellow maculae. Female and male: (4.8–)5.5–6 mm. – Hungary, Serbia, Romania, Mongolia *Ch. elongatus* SZÉPLIGETI, 1898

2 (1) Head in dorsal view 1.65–1.7 times as broad as long, temple frequently just bulged (Fig. 25). Antenna with 28–30 antennomeres. Pterostigma as long as *1–R1*, *r* shorter than *3–SR* (Fig. 26, see arrows). Anterior two-thirds of carapace longitudinally striate, hind third rugose, weakly rugose to rugulose, carapace evenly broadening posteriorly (Fig. 27). Carapace slightly incurved ventro-apically (Fig. 28). Carapace testaceous, apically black. Female and male: 5.5–6 mm. – England, Hungary, Poland (?= *Ch. zimini* TOBIAS, 1972) *Ch. wesmaeli* CURTIS, 1837

Chelonus olgae KOKUJEV, 1895
(Figs 29–39)

Chelonus olgae KOKUJEV, 1895: 88, ♀♀ (syntype series?), type locality: "Lagodechi (Transcaucasie, gouv. de Tiflis)" (Georgia), syntype(s) in Zoological Institute, Sankt-Petersburg; not examined. – SHENEFELT 1973: 861 (literature up to 1962); TOBIAS 1972: 285 (in key, in Russian), 1986: 307 (in key, in Russian).

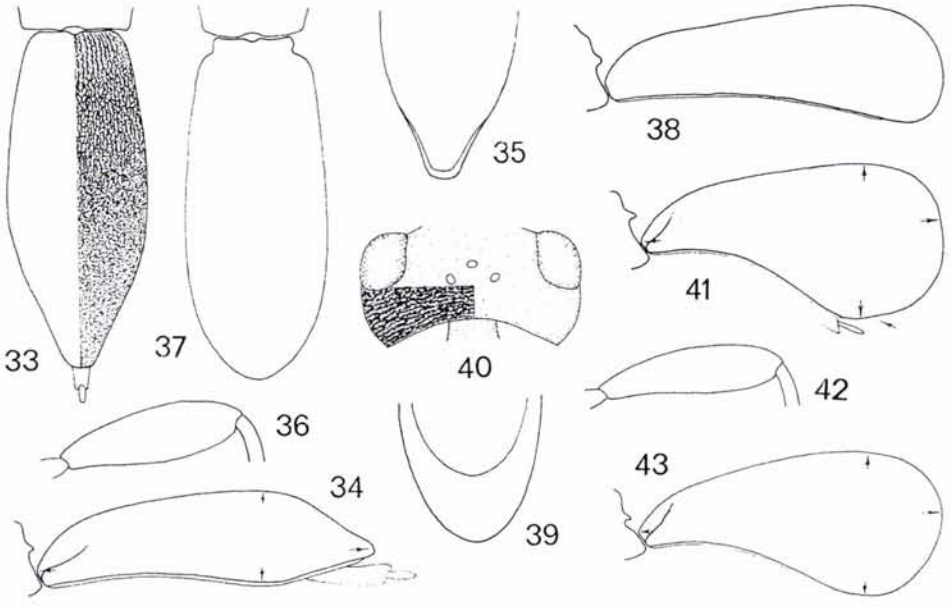
Chelonus schmiedeknechti SZÉPLIGETI, 1898: 209 (description), 213 (♀) and 216 (♂) (in keys, in Hungarian); 220 (description), 226 (♀) and 228 (♂) (in keys, in German) ♀♂ (syntype series three males; four females + three males mislaid, lost or destroyed), type locality: Budapest (Hungary), male lectotype (designated by PAPP in SHENEFELT 1973: 861) and two male paralectotypes (designated by PAPP 1996: 140) in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined. – Synonymized by FAHRINGER 1934: 494.

Type designations – Designation of the male lectotype of *Ch. schmiedeknechti* SZÉPLIGETI: (first label, printed) "Budapest / Sashegy"; (second label) @148Arial"[18@148Arial"]"95.VI.18 Szépligeti"; third label is my lectotype card; fourth label is with the inventory number "Hym. Typ. No. 481"; fifth label (reverse the fourth label) is with GRAHAM's provisional lectotype designation; sixth label is with the actual name *Ch. olgae* KOKUJEV given by me. – Male lectotype is in fairly good condition: (1) right flagellum missing, (2) left flagellum damaged apically and with 28 flagellomeres.

Designation of the two male paralectotypes of *Ch. schmiedeknechti* SZÉPLIGETI: labels 1–3 identical with those of the lectotype (inventory numbers Hym. Typ. Nos 482 and 483) – fourth label is with the actual name *Ch. olgae* KOKUJEV given by me. – Male paralectotype (No. 482) is in fairly good condition: (1) left flagellum missing, (2) right flagellum damaged apically and sticked to the pin, (3) left fore leg (except coxa) missing. – Male paralectotype (No. 483) is in poor condition: (1) hind half of carapace considerably damaged (by *Anthrenus*?), (2) costal veins of left fore and hind wings partly sticky.

Material examined – Male lectotype and two male paralectotypes of *Ch. schmiedeknechti* SZÉPLIGETI; 3 females + 4 males from 6 localities in Hungary.

Description of the three females – Body 7–9 mm long (7: 2 ♀♀, 9: 1 ♀). Antenna long, nearly as long as to as long as body and with 45 antennomeres. First flagellomere 3.3 times as long as broad apically, further flagellomeres gradually shortening and attenuating so that penultinate flagellomere



Figs 33–43. 33–39. *Chelonus olgae* KOKUJEV, 1895: 33 = female carapace in dorsal view with indication of its sculpture, 34 = female carapace in lateral view, 35 = posterior end of female carapace in ventral view, 36 = hind femur of male, 37 = male carapace in dorsal view, 38 = male carapace in lateral view, 39 = posterior end of male carapace in ventral view. – 40–42. *Chelonus capsa* TOBIAS, female: 40 = head in dorsal view with indication of its sculpture, 41 = carapace in lateral view, 42 = hind femur. – 43 = *Chelonus pannonicus* SZÉPLIGETI, 1896, male carapace in lateral view

1.4–1.6 times as long as broad (1.4: 1 ♀, 1.5: 1 ♀, 1.6: 1 ♀). Head in dorsal view (Fig. 29) transverse, 1.7 times as broad as long, eye somewhat longer than temple, temple moderately rounded, occiput excavated. Ocelli small and round, OOL slightly longer than POL. Eye in lateral view 1.7 times as high as wide, temple beyond eye slightly wider than eye (Fig. 30, see arrows). Malar space a bit longer than basal width of mandible. Face twice as wide as high, inner margin of eyes somewhat diverging ventrally. Clypeus twice as wide below as high medially, its lower margin medially truncate. Face along eye rugose, otherwise rugulose, shiny. Clypeus finely punctate, interspaces more or less longer than punctures. Frons rugose, vertex and occiput rugose to rugulose; temple finely punctate, shiny.

Mesosoma in lateral view 1.6 times as long as high, punctate to confluent punctate, mesoscutum either almost smooth and shiny (2 ♀♀) or laterally finely punctate to uneven, subshiny (2 ♀♀). Notaulix distinct by somewhat roughened sculpture. Scutellum smooth and shiny. Propodeum areolate-rugose, transverse carina distinct and laterally ending in a small tubercule. Hind femur 3.3–3.8 times as long as broad medially (3.3: 1 ♀, 3.6: 1 ♀, 3.8: 1 ♀) (Fig. 31). Inner spur of hind tibia half as long as basitarsus. Hind basitarsus as long as tarsomeres 2–4 + half of fifth tarsomere combined.

Fore wing short, 0.6–0.7 times as long as body. Pterostigma (Fig. 32) 2.8 times as long as wide, issuing *r* distally from its middle; *3–SR* twice (2 ♀♀) to almost twice (1 ♀) as long as *r*, *1–R1* one-fourth to a bit shorter than pterostigma.

Carapace in dorsal view (Fig. 33) 2.7 times as long as broad anteriorly, here carapace weakly broadening, posterior half of carapace narrowing and apically pointed. Anterior third of carapace longitudinally rugose with striate elements, posterior two-thirds of carapace densely rugose to rugulose (Fig. 33). Pair of basal keels indistinct. Carapace in lateral view (Fig. 34) 3.3–3.7 times as long as high behind, apically not incurved (Fig. 35), i.e. aparture of carapace as long as carapace itself. Ovipositor sheath short.

Ground colour of body black, mesosoma either almost entirely (1 ♀) or partly (1 ♀) reddish yellow. Antenna black with more (1 ♀) or less (1 ♀) rusty to dark rusty tint. Mandible dark rusty, palpi brownish greyish (2 ♀♀) or light brownish yellow (1 ♀). Legs blackish brown to brown, femora 1–2 apically reddish yellow; tibiae + tarsi 1–2 light brownish yellow, tarsomeres with brownish suffusion; proximal ring of hind tibia and hind basitarsus almost entirely pale yellow, hind tibia distally blackish. Wings subfumous, pterostigma dark brown to brown, parastigma yellow, veins proximo-distally yellow to brownish yellow.

Redescription of the seven males – Similar to female. Body 5.5–6.3 mm long (5.5: 1 ♂, 6: 4 ♂♂, 6.3: 2 ♂♂). Antenna almost as long as body and with 41–44 antennomeres (41: 1 ♂, 42: 1 ♂, 44: 1 ♂, 4 ♂♂ with damaged antenna). Sculpture of head somewhat rougher. Hind femur 3.1–3.6 times as long as broad medially (Fig. 36) (3.1: 3 ♂♂, 3.3: 2 ♂♂, 3.6: 2 ♂♂). Carapace in dorsal view (Fig. 37) 2.2–2.4 times as long as broad behind, just broadening posteriorly, apically rounded. Carapace in lateral view (Fig. 38) 2.8–3.1 times as long as high behind (2.8: 2 ♂♂, 2.9: 2 ♂♂, 3.1: 2 ♂♂, carapace of 1 ♂ damaged), apically incurved (Fig. 39). Body black. Antenna black, palpi brown to dark brown. Dark (i.e. black to dark brown) colour of legs more extended.

Host unknown.

Distribution – Spain, Hungary, Germany, European part of Russia, Georgia, Kazakhstan, Uzbekistan.

Remarks – The female of *Chelonus olgae* KOKUJEV is related to *Ch. sternalis* TOBIAS considering their carapace which is long in dorsal view and posteriorly narrowing as well as not incurved in ventral view, and their antennae with excep-

tionally high (over 40) number of antennomeres. The two species can be separated by the following features:

1 (2) Female: Last sternites produced far beyond apex of carapace (Fig. 12 in TOBIAS 1964: 188). Temple weakly bulging in dorsal view, i.e. head between temples somewhat broader than between eyes (cf. Fig. 25). Hind femur four times as long as broad. Mesosoma black. 6 mm. – Kazakhstan
Ch. sternalis TOBIAS, 1964

2 (1) Female: Last sternites under carapace as usually (Fig. 34). Temple not bulging in dorsal view, i.e. head between temples not broader than between eyes (Fig. 29). Hind femur 3.3–3.8 times as long as broad. Mesosoma frequently more or less reddish yellow. 7–9 mm. – Sporadic in western Palaearctic Region
Ch. olgae KOKUJEV, 1895

The female of *Ch. olgae* KOKUJEV seems to be nearest to *Ch. planiventris* TOBIAS considering their narrowing carapace on posterior half. The two species can be separated by the following features:

1 (2) Antenna with 45 antennomeres. Temple in dorsal view somewhat shorter than eye (Fig. 29). *1–R1* one-fourth to a bit shorter than pterostigma (Fig. 32, see arrows). Hind femur 3.3–3.8 times as long as broad (Fig 31). Carapace in lateral view 3.3–3.7 times as long as high behind (Fig. 34, see arrows). Mesosoma frequently more or less reddish yellow. Female: 7–9 mm. – Sporadic in western Palaearctic Region *Ch. olgae* KOKUJEV, 1895

2 (1) Antenna with 21 antennomeres. Temple in dorsal view 1.5 times as long as eye. *1–R1* as long as pterostigma. Hind femur five times as long as broad. Carapace in lateral view four times as long as high. Mesosoma black. Female: 4.4 mm. – Kazakhstan *Ch. planiventris* TOBIAS, 1960

The male of *Ch. olgae* KOKUJEV is very similar to *Ch. elongatus* TOBIAS. They are distinct by a few features as follows:

1 (2) Antenna about with 20 antennomeres. Hind femur five times as long as broad. *1–R1* as long as pterostigma. Wings hyaline. Male: 4.2 mm. – Kazakhstan, Uzbekistan *Ch. elongatulus* TOBIAS, 1986

2 (1) Antenna with 41–44 antennomeres. Hind femur 3.1–3.6 times as long as broad (Figs 31, 36). *1 –R1* somewhat shorter than pterostigma (Fig. 32). Wings subhyaline, i.e. faintly fumous. Male: 5.5–6.3 mm. – Sporadic in western Palaearctic Region *Ch. olgae* KOKUJEV, 1895

Chelonus pannonicus SZÉPLIGETI, 1896
(Figs 43–53)

Chelonus pannonicus SZÉPLIGETI, 1896*a*: 174 (in Hungarian) and 234 (in German), ♀ (syntype series: six females), type locality: Budapest (Hungary), female lectotype (and five female paralectotypes; three females originally considered as males) in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined. – SHENEFELT 1973: 861 (lectotype designation, literature up to 1961); TOBIAS 1972: 288 (in key, in Russian), 1986: 310 and 316 (in key, in Russian); PAPP 1996: 140 (designation of paralectypes); 1997: 7 (in key).

Type designations – Designation of the female lectotype: (first label) "Budapest Szépligeti"; second label is my lectotype card; third label is with the inventory number "Hym. Typ. No. 541"; fourth label (reverse the third label) is with GRAHAM's provisional lectotype designation in 1954 (in litt.). – Female lectotype is in good condition: head fell off and sticked to mesosoma above its prosternal foramen.

Designation of the five female paralectotypes: labels 1–3 identical to those of the lectotype, inventory numbers Hym. Typ. Nos 542–546 (originally three females of Nos 544–546 were considered as males in the original description). – Two female paralectotypes (Nos 542–543) is in good condition: fore pair of legs (except coxa) of one female (No. 542) missing. Three female paralectotypes (Nos 544–546) in fairly poor condition: flagelli and legs partly missing partly damaged.

Redescription of the female lectotype – Body 5.2 mm long. Antenna just as long as head and mesosoma combined and with 19 antennomeres. First flagellomnere 2.5 times as long as broad, further flagellomeres shortening so that penultinate flagellomere cubic. Head in dorsal view (Fig. 44) transverse, twice as broad as long, eye as long as temple, temple receded, occiput deeply excavated. Ocelli small and round, OOL one-fourth longer than POL. Eye in lateral view twice as high as wide, temple beyond eye just as wide as eye (Fig. 45, see arrows). Malar space a bit longer than basal width of mandible. Face 2.2 times as wide as high, inner margin of eyes just converging. Clypeus 1.5 times as wide below as high medially, its lower margin medially just emarginated (Fig. 46). Face roughly rugose; clypeus densely punctate, interspaces shorter than punctures. Vertex and occiput less roughly striate (Fig. 44).

Mesosoma in lateral view 1.4 times as long as high, rugose, notaulix indistinct. Scutellum invisible because the lectotype is pinned here. Propodeum with weak transverse carina, carina medially with a pair of small tubercules, laterally ending in a pair of teeth, otherwise propodeum rugose to roughly rugose. Hind femur 3.1 times as long as broad somewhat distally (Fig. 47). Inner spur of hind tibia clearly longer than half basitarsus. Hind basitarsus as long as tarsomeres 2–4 combined.

Fore wing about one-fourth shorter than body. Pterostigma (Fig. 48) 2.8 times as long as wide issuing *r* just distally from itsmiddle, *3–SR* twice as long as *r*, *1–R1* 0.75 times as long as pterostigma.

Carapace in dorsal view (Fig. 49) 1.6 times as long as broad medially, apically rounded. Pair of basal keels short and weak, restricted to declivous basal part of carapace. Carapace longitudinally striate with posteriorly increasing anastomoses (Fig. 49), its hind declivous part rugose. Carapace in lateral view deeply declivous, i.e. 1.85 times as long as high behind and clearly incurved ventrally (Fig. 50, see arrows). In ventral view aparture of carapace clearly one-third shorter than carapace itself (Fig. 51). Ovipositor sheath short.

Ground colour of body black. Antenna black. Mandible reddish yellow, palpi dark brown. Tegula black. Carapace basally with a pair of yellow maculae. Legs black, trochantelli and femora

with brownish tint; femora apically, tibiae 1–2 and basitarsi brownish yellow, hind tibia brownish black with a proximal yellow ring, tarsi brownish to brown. Wings subhyaline, pterostigma dark brown, parastigma yellow, veins light brown, basally yellow, carpal vein brownish yellowish.

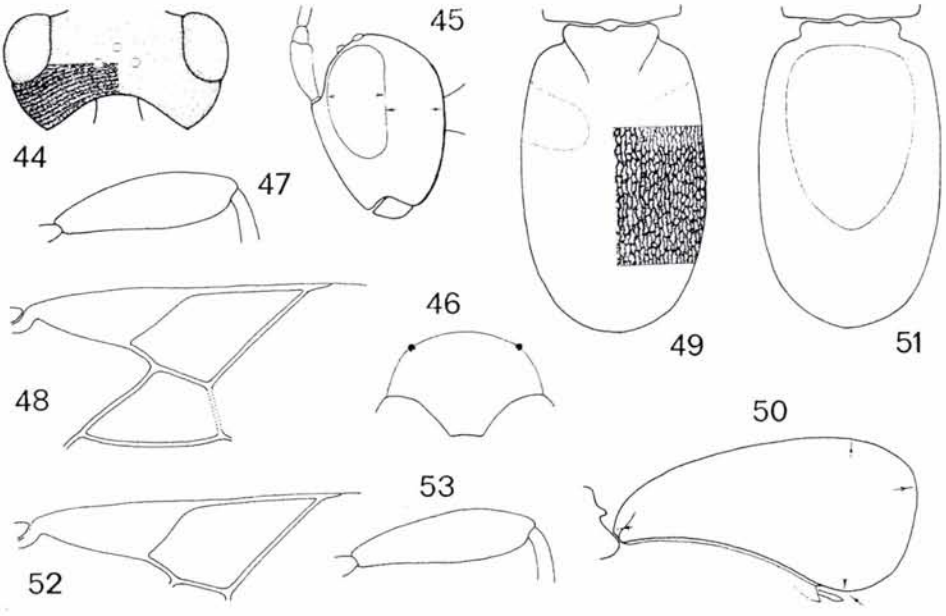
Redescription of the five female paralectotypes – Similar to the lectotype. Body 4.8–5.2 mm long (4.8: 2 ♀♀, 5: 1 ♀, 5.2: 2 ♀♀). Antenna with 19 (2 ♀♀) and 20 (1 ♀) antennomeres. Eye in dorsal view 1.7–1.85 times as long as temple. Hind femur 2.9 times as long as broad medially (2 ♀♀). Inner spur of hind tibia just longer than half basitarsus (2 ♀♀). Pterostigma issuing *r* distally (2 ♀♀) from its middle (Fig. 52). Basal yellow maculae of carapace small.

Variability of females – Five females from Hungary, one female from Greece. Body 4.8–5.3 mm long (4.8: 2 ♀♀, 5: 2 ♀♀, 5.2: 1 ♀, 5.3: 1 ♀). Antenna with 19 (5 ♀♀) and 24 (1 ♀) antennomeres. Eye in dorsal view 1.7–2 times as long as temple. Hind femur 3–3.2(–3.5) times as long as broad medially. Carapace in lateral view 1.75–1.85 times as long as high.

Description of the males – Four males from Hungary. Similar to female. Body 4.8–5 mm long (4.8: 2 ♂♂, 5: 3 ♂♂). Antenna as long as head, mesosoma and anterior third of carapace combined, with 25–31 antennomeres. Head in dorsal view 1.9–2 times as broad as long. Hind femur 3.5–3.7 times as long as broad medially (Fig. 53). Pterostigma issuing *r* somewhat distally from its middle. Carapace in lateral view 1.85–2.3 times as long as high.

Host – Eublemma pannonica (FREYER, 1840) (Lepidoptera: Noctuidae).

Distribution – Hungary, Greece.



Figs 44–53. *Chelonus pannonicus* SZÉPLIGETI, 1896: 44 = head in dorsal view with indication of its sculpture, 45 = head in lateral view, 46 = clypeus, 47 = hind femur of female, 48 = distal part of right fore wing of female lectotype, 49 = carapace in dorsal view with indication of its sculpture, 50 = female carapace in lateral view, 51 = female carapace in ventral view, 52 = distal part of right fore wing of female paralectotype, 53 = hind femur of male

Remarks – *Chelonus pannonicus* SZÉPLIGETI is nearest to *Ch. capsa* TOBIAS considering their deeply incurved carapace in lateral view (Figs 41, 43, 50), the two species are distinguished by the following features:

1 (2) Eye in dorsal view 1.7–1.85 times as long as temple, temple receded (Fig. 44). Antenna of female with 19–24 antennomeres. Carapace somewhat less incurved in lateral view and slightly less rounded behind (Figs 43, 50, see arrows). Hind femur 2.9–3.1 times (♀, Fig. 47) and 3.3–3.5 times (♂, Fig. 53) as long as broad medially. Female: 4.8–5.3 mm, male: 4.8–5 mm. – Hungary, Greece *Ch. pannonicus* SZÉPLIGETI, 1896

2 (1) Eye in dorsal view just longer than temple, temple rounded (Fig. 40). Antenna of female with 26–30 antennomeres. Carapace somewhat more incurved in lateral view and slightly more rounded behind (Fig. 41, see arrows). Hind femur 3.8–4 times (♀) as long as broad medially (Fig. 42). Female: 4.5–5 mm. – European part of Russia *Ch. capsa* TOBIAS, 1972

Chelonus szepligetii DALLA TORRE, 1898
(Figs 54–61)

Chelonus rufiscapus SZÉPLIGETI, 1896*a*: 174 (in Hungarian) and 235 (in German) (descriptions), ♀ (syntype series: three females), type locality: "Budapest" (Hungary), female lectotype (designated by PAPP in SHENEFELT 1973) and two female paralectypes (designated by PAPP 1996: 142) in Magyar Természettudományi Múzeum (= Hungarian Natural History Museum), Budapest; examined. – SHENEFELT 1973: 869.

Chelonus szepligetii, 1898: 208 (replacement name for *Ch. rufiscapus* SZÉPLIGETI, 1896 nec PROVANCHER, 1886). SHENEFELT 1973: 869 (literature up to 1941); TOBIAS 1972: 292 (in key, in Russian), 1986: 316 (in key, in Russian); PAPP 1996: 142 (type designations).

Type designations – Designation of the female lectotype of *Ch. rufiscapus* SZÉPLIGETI: (first label) "Budapest / Gellérthegy"; (second label) [18]"95.VIII.13 / Szépligeti"; third label is my lectotype card; fourth label is with the inventory number "Hym. Typ. No. 497"; fifth label (reverse the fourth label) is with Graham's provisional lectotype designation in 1954 (in litt.); sixth label is with the actual name *Ch. szepligetii* DALLA TORRE given by me. – Lectotype is in good condition: right flagellum apically damaged.

Designation of the two female paralectotypes of *Ch. rufiscapus* SZÉPLIGETI: labels 1–5 identical with those of the lectotype, inventory numbers Hym. Typ. Nos 498–499. – Paralectotypes in good condition: one female (No. 499) with its right flagellum damaged and tarsomeres 2–5 of left middle leg missing.

Material examined – Three females of the type series of *Ch. rufiscapus* SZÉPLIGETI.

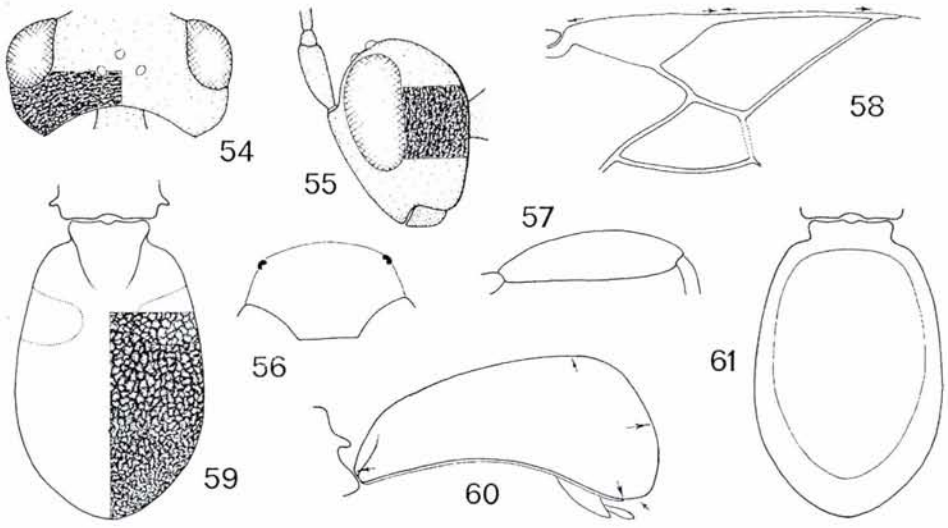
Redescription of the female lectotype – Body 4.5 mm long. Antenna as long as head, mesosoma and one-fourth of carapace combined, with 33 antennomeres. First flagellomere 2.6 times as long as broad apically, further flagellomeres shortening and attenuating so that penultimate flagellomere cu-

bic. Head in dorsal view (Fig.54) transverse, just less than twice, i.e. 1.85 times, as broad as long, eye 1.66 times as long as temple, temple rounded, occiput excavated. Ocelli small and just elliptic, OOL one-fourth longer than POL. Eye in lateral view twice as high as wide, temple beyond eye as wide as eye (Fig. 55). Malar space as long as basal width of mandible. Face almost twice as wide as high, inner margin of eyes parallel. Clypeus 1.6 times as wide below as high medially, its lower margin medially truncate (Fig. 56). Face rugose; clypeus rather finely punctate, interspaces more or less greater than punctures. Vertex and occiput transversely rugoso-striate (Fig. 54), temple also rugoso-striate (Fig. 55).

Mesosoma in lateral view 1.4 times as long as high, rugose, notaulix distinct by somewhat rougher sculpture. Scutellum smooth, shiny and with a few fine punctures. Propodeum areolate-rugose and with a transverse carina ending laterally in a denticule, medially with a pair of small tubercules. Hind femur 3.6 times as long as broad medially (Fig. 57). Inner spur of hind leg just as long as half basitarsus. Hind basitarsus as long as tarsomeres 2–4 and half of 5th tarsomere combined.

Fore wing clearly one-third shorter than body. Pterostigma 2.6 times as long as wide, issuing *r* just distally from its middle; *3–SR* as long as *r*, *1–R1* a bit longer than pterostigma (Fig. 58, see arrows).

Carapace in dorsal view (Fig. 59) 1.6 times as long as broad behind, apically rounded. Pair of basal keels short and converging. Carapace antero-posteriorly rather longitudinally areolate-rugose to rugose-rugulose. Carapace in lateral view twice as long as high behind, basally half as high as behind, i.e. carapace posteriorly conspicuously swelling (Fig. 60, see arrows). Aparture of carapace in ventral view nearly as long as carapace itself, carapace apically somewhat incurved (Fig. 61). Ovipositor apparatus short.



Figs 54–61. *Chelonus szepligetii* DALLA TORRE, 1898: 54 = head in dorsal view with indication of its sculpture, 55 = head in lateral view with indication of sculpture of temple, 56 = clypeus, 57 = hind femur, 58 = distal part of right fore wing, 59 = carapace in dorsal view with indication of its sculpture, 60 = carapace in lateral view, 61 = carapace in ventral view

Ground colour of body black. Scape, pedicel and flagellomeres 1–2 rusty, flagellum proximo-distally with faintly strengthening greyish to dark greyish suffusion. Mandible rusty, palpi dirty yellow. Tegula rusty brown. Carapace basally usually with a pair of yellow maculae. Legs rusty to reddish yellow with faint greyish pattern, coxae and trochanters brown to brownish, hind tibia apically dark. Wings subfumous, pterostigma brown, venation proximally yellow, distally brownish opaque.

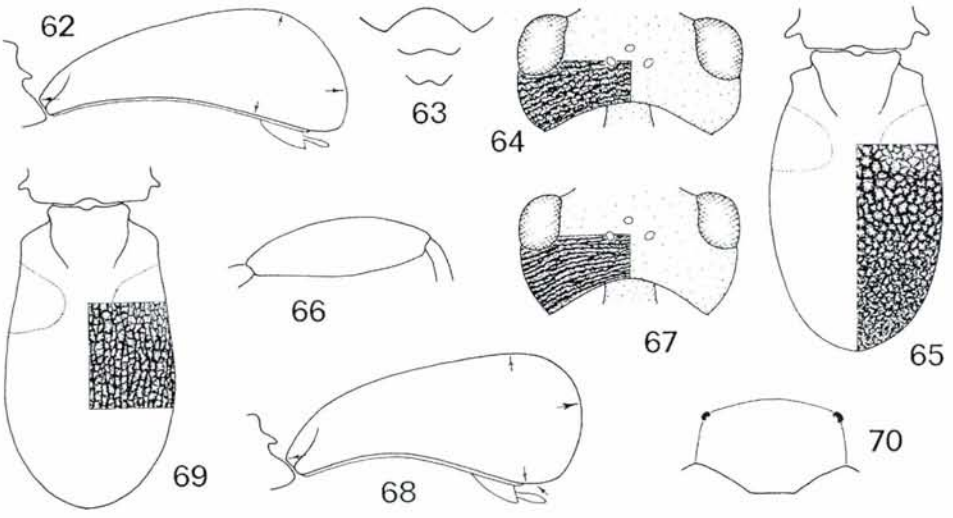
Description of the two female paralectotypes. – Similar to the female lectotype. Body 4.3–4.5 mm long. Antenna with 33–34 antennomeres. Hind femur 3.8 times as long as broad medially (1 ♀). Carapace in dorsal view 1.6 times as long as broad behind. Basal pair of maculae small, restricted to lateral part of carapace. Dark colour of legs somewhat more extended.

Male and host unknown.

Distribution – Hungary.

Remarks – Chelonus szepligetii DALLA TORRE is nearest to *Ch. caradrinae* KOKUJEV considering the form of their carapace, the two species are distinguished by the following features:

1 (2) Carapace less curved posteriorly in lateral view, 2.8 times as long as high behind (Fig. 62, see arrows); carapace weakly incised apically (Fig. 63). Temple moderately rounded in dorsal view, strongly striate (Fig. 64). Carapace less globose in dorsal view, its sculpture rough (Fig. 65). Hind femur usually



Figs 62–70. 62–66. *Chelonus caradrinae* KOKUJEV, 1913: 62 = carapace in lateral view, 63 = three forms of apical excision of carapace in dorsal view, 64 = head in dorsal view with indication of its sculpture, 65 = carapace in dorsal view with indicaton of its sculpture, 66 = hind femur. – 67–70. *Ch. asiaticus* TELENGA, 1941: 67 = head in dorsal view with indication of its sculpture, 68 = carapace in lateral view, 69 = carapace in dorsal view with indication of its sculpture, 70 = clypeus

2.9–3.1 times as long as broad (Fig. 66). Antenna and hind femur black. Female: 4–5.2 mm, male: 3.5–4.5 mm. – Hungary, Russia, Moldavia, Kazakhstan, Mongolia *Ch. caradrinae* KOKUJEV, 1913

2 (1) Carapace more curved posteriorly in lateral view, twice as long as high behind (Fig. 60, see arrows); carapace never incised apically. Temple rounded in dorsal view, striate-rugose (Fig. 54). Carapace globose in dorsal view, its sculpture less rough (Fig. 59). Hind femur 3.6–3.8 times as long as broad (Fig. 57). Scape, pedicel and flagellomeres 1–2 rusty with faint greyish suffusion, flagellum proximo-distally with faintly strengthening greyish to dark greyish tint. Hind femur reddish yellow with brownish tint. Female: 4.3–4.5 mm, male unknown. – Hungary (= *Ch. rufiscapus* SZÉPLIGETI) *Ch. szepligetii* DALLA TORRE, 1898

Ch. szepligetii DALLA TORRE is reminiscent of *Ch. asiaticus* TELENGA by their similar body form; however, they can be separated by a few clear-cut characters:

1 (2) Temple in dorsal view (Fig. 67) as long as or somewhat longer than eye, moderately rounded and striate. Carapace more incurved in lateral view and lower behind (Fig. 68, see arrows), less globose in dorsal view and longitudinally rugose (Fig. 69). Clypeus a bit lower as in Fig. 70. Antenna with 24–27(–30) antennomeres. Antenna and hind femur black, latter at most with brownish tint. Female and male: (3–)4–5 mm. – Palaearctic Region *Ch. asiaticus* TELENGA, 1941

2 (1) Temple in dorsal view (Fig. 54) 0.6 times as long as eye, rounded and transversely rugose. Carapace less incurved in lateral view and somewhat higher behind (Fig. 60, see arrows), more globose in dorsal view and areolate-rugose (Fig. 59). Clypeus a bit higher as in Fig. 56. Antenna with 33–34 antennomeres. Antenna rusty with distally increasing greyish tint; hind femur reddish yellow with brownish tint. Female: 4.3–4.5 mm. – Hungary (= *Ch. rufiscapus* SZÉPLIGETI) *Ch. szepligetii* DALLA TORRE, 1898

APPENDIX

Microchelonus species from the historical Hungary originally described by SZÉPLIGETI in the genus *Chelonus*

Twelve *Chelonus* species described by SZÉPLIGETI were transferred into the genus *Microchelonus* of which four remained valid and eight proved to be identi-

cal with species described earlier by other authors. These are as follows (valid names are in italics):

Microchelonus SZÉPLIGETI, 1908

alboannulatus (SZÉPLIGETI, 1896) – junior synonym of *M. pellucens* (NEES, 1816).
compressiscapus (SZÉPLIGETI, 1898) – junior synonym of *M. contractus* (NEES, 1816).
curvisulcatus (SZÉPLIGETI, 1896) – junior synonym of *M. sulcatus* (JURINE, 1807).
fissus (SZÉPLIGETI, 1900) – junior synonym of *M. risorius* (REINHARD, 1867).
flavipalpis (SZÉPLIGETI, 1896) – valid.
hungaricus (SZÉPLIGETI, 1896) – junior synonym of *M. erosus* (HERRICH-SCHAEFFER, 1838).
hungaricus SZÉPLIGETI, 1908 – valid.
minutus (SZÉPLIGETI, 1898) – junior synonym of *M. vescus* (KOKUJEV, 1899).
pulchricornis (SZÉPLIGETI, 1898) – junior synonym of *M. pellucens* (NEES, 1816).
pusillus (SZÉPLIGETI, 1908) – valid.
rimatus (SZÉPLIGETI, 1896) – junior synonym of *M. sulcatus* (JURINE, 1807).
scabrosus (SZÉPLIGETI, 1896) – valid.

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