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Autor: Švihla, V.
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Contribution to the knowledge of the genus *Cantharis* L. and related genera from Turkey and adjacent regions (Coleoptera, Cantharidae)

by V. Švihla

Abstract. Species of genus *Cantharis* L. with dark elytra of Turkey and adjacent region are revised and taxonomic notes on related genera are given. Taxonomic value of coloration variability in *Cantharis* group of genera is discussed. New taxa are described and illustrated: *Cantharis boroveci* sp.n. (Armenia), *C. kafkai* sp.n. (Iran), *Metacantharis walteri* sp.n. (Turkey), *M. torosensis* sp.n. (Turkey), *Boveycantharis tauricola* sp.n. (Turkey), *B. mersinensis* sp.n. (Turkey), *B. holzschuhi* sp.n. (Turkey), *Islamocantharis* subgenus *Unicantharis* subg.n., *Cordicantharis* gen.n., *C. similis* sp.n. (Turkey), *C. witteri* sp.n. (Lebanon) and *Occathemus* gen.n. New status is given to following taxa: *Cantharis delagrangei* Delkeskamp, 1939, stat.n., *C. marginiventris funebris* (Marseul, 1864), stat.n., *Cantharis* subgenus *Cyrtomoptila* Motschulsky, 1859, stat.n., *C. (Cyrtomoptila) pygmaea mongolica* Pic, 1906, stat.n. and *C. kervillei* Pic, 1932, stat.n. New combinations are presented as follows: *Metacantharis fulvoides* (Pic, 1904), comb.n. (transferred from *Cantharis*), *M. rosinae* (Pic, 1902), comb.n. (from *Cantharis*), *Islamocantharis cyanipennis* (Faldermann, 1835), comb.n. (from *Cantharis*), *I. (Unicantharis) cilicia* (Pic, 1904), comb.n. (from *Cantharis*), *Cordicantharis longicollis* (Kisenwetter, 1859), comb.n. (from *Cantharis*), *C. cordicollis* (Küster, 1854), comb.n. (from *Cantharis*), *C. caspica* (Reitter, 1898), comb.n. (from *Cantharis*), *C. talyshensis* (Pic, 1900), comb.n. (from *Cantharis*), *C. iliaca* (Marseul, 1864), comb.n. (from *Cantharis*), *C. acutangula* (Fairmaire, 1884), comb.n. (from *Cantharis*), *C. bodemeyeri* (Bourgeois in Bodemeyer, 1900), comb.n. (from *Cantharis*), *C. diabolica* (Reitter, 1895), comb.n. (from *Cantharis*) and *Occathemus tarsalis* (Mulsant in Reiche, 1862), comb.n. (from *Gymnocantharis*). New synonymies are established: *Cantharis rufa* Linnaeus, 1758 = *Telephorus tenuelimbatus* Ballion, 1870, syn.n. = *C. turkestanica* Pic, 1913, syn.n.; *C. forticornis* Heyden, 1885 = *C. nigropubescens* Barovskij, 1926, syn.n.; *C. oculimarginalis* Hicker, 1935 = *C. oculimarginalis ferganica* Švihla, 1992, syn.n.; *C. rustica* Fallén, 1807 = *C. rustica* var. *mimithorax* Pic, 1910, syn.n. = *C. albanica* Pic, 1947, syn.n.; *C. annularis* Ménétré, 1836 = *C. nigrolabrus* Pic, 1915, syn.n.; *C. bilunata* (Marseul, 1864) = *C. bilunata* var. *dilutipes* Pic, 1906, syn.n. = *C. bilunata* var. *distincticollis* Pic, 1906, syn.n.; *C. delagrangei* Delkeskamp, 1939 = *C. marginiventris* var. *ottoi* Delkeskamp, 1939, syn.n. = *C. marginiventris* var. *trisignaticollis* Delkeskamp, 1939, syn.n.; *C. marginiventris marginiventris* (Reiche & Saulcy, 1857) = *C. funebris* var. *bloudana* Pic, 1915, syn.n. = *C. funebris* var. *insignatithorax* Delkeskamp, 1939, syn.n. = *C. funebris* var. *postarctuata* Delkeskamp, 1939, syn.n.; *C. prusiensis* (Marseul, 1864) = *C. eurynota* Bourgeois in Bodemeyer, 1900, syn.n. = *C. atrocapitata* Pic, 1903, syn.n.; *C. pulicaria* Fabricius, 1781 = *C. malatiensis* var. *detectiventris* Pic, 1904, syn.n. = *C. pulicaria* var. *curticollis* Pic, 1906, syn.n.; *C. brevipennis* Faldermann, 1835 = *C. akbesiana* Pic, 1906, syn.n. = *C. brachyptera* Holdhaus, 1920, syn.n.; *C. basithorax* Pic, 1902 = *C. bulgarica* Švihla, 1983, syn.n.; *C. lateralis* Linnaeus, 1758 = *C. lateralis afghana* Švihla, 1992, syn.n.; *C. nigra* (Degeer, 1774) = *C. bicolor* var. *discotestacea* Pic, 1905, syn.n.; *C. smyrnensis* (Marseul, 1864) = *Telephorus rufocapitatus* Gemminger, 1870, syn.n. = *C. hellenica* Heyden, 1883, syn.n. = *C. morfini* Pic, 1901, syn.n. = *C. eduardi* Pic, 1914, syn.n. = *C. fulvicollis graecoturca* Wittmer, 1996, syn.n.; *Cantharis* subg. *Cyrtomoptila* Motschulsky, 1859 = *Absidiella* Wittmer, 1972, syn.n. = *Gymnocantharis* Wittmer, 1979, syn.n.; *C. (Cy.) pygmaea pygmaea* Ménétré, 1832 = *C. inforticornis* Pic, 1913, syn.n.; *C. (Cy.) pygmaea mongolica* Pic, 1906 = *Gymnocantharis himalaica* Wittmer, 1979, syn.n.; *C. cedricola* Wittmer, 1971 = *C. cyprogenia* Švihla, 1983, syn.n.; *C. decolorans* (Brullé, 1832) = *C. parnassica* Pic, 1903, syn.n. = *C. parnassica* var. *latemaculata* Pic, 1905, syn.n. = *C. parnassica* var. *kalavrytana* Pic, 1909, syn.n.; *C. terminata* Faldermann, 1835 = *C. melanoscelis* Kolenati, 1846, syn.n. = *C. sudetica* Letzner, 1846, syn.n. = *Telephorus fissicollis* Fairmaire, 1884, syn.n. = *C. sudetica* var. *vesubiella* Bourgeois, 1893, syn.n. = *C. dahlgreni* Wittmer, 1984, syn.n.; *C. kervillei* Pic, 1932 = *C. muelleri* Hicker, 1955, syn.n.; *Metacantharis discoidea* (Ahrens, 1812) = *Cantharis semidiscoidalis* Pic, 1909, syn.n.; *M. taurigrada* Bourgeois in Bodemeyer, 1900 = *M. angorensis* Pic, 1903, syn.n.; *M. araxicola* (Reitter, 1891) = *M. araxicola* var. *disparipennis* Bourgeois in Bodemeyer, 1900, syn.n.; *M. fulvoides* (Pic, 1904) = *M. kostali* Wittmer, 1997, syn.n.; *Boveycantharis dimidiatipes* (Reiche & Saulcy, 1857) = *B. dimidiatipes varicolor* Wittmer, 1969, syn.n.; *Islamocantharis cyanipennis* (Faldermann, 1835) = *I. auroraensis* Kasantsev, 1989, syn.n.; *I. (Unicantharis) cilicia* (Pic, 1904) = *C. inpectoralis* Pic, 1908, syn.n.; *Cordicantharis iliaca* (Marseul, 1864) = *Cantharis pontica* Pic, 1904, syn.n. = *C. iliaca* var. *chehirensis* Pic, 1918, syn.n.; *Cordicantharis acutangula* (Fairmaire, 1884) = *Cantharis amanicola* Pic, 1903, syn.n.

Key words. Coleoptera - Cantharidae - *Cantharis* - *Metacantharis* - *Boveycantharis* - *Islamocantharis* - Palaearctic - taxonomy - distribution.

Material and methods

Material which this study is based on is deposited in the following collections:

DEIC	Deutsches entomologisches Institut, Eberswalde, Lothar Zerche
GGVS	collection of Gösta Gillerfors, Varberg, Sweden
HNHM	Természettudományi Múzeum, Budapest, Ottó Merkl
IROS	collection of Ingvar Rydh, Olofström, Sweden
MNHN	Muséum National d'Histoire Naturelle, Paris, Jean C. Menier
NHMB	Naturhistorisches Museum, Basel, Michel Brancucci, †Walter Wittmer
NMPC	Národní muzeum, Praha, Josef Jelínek
SLLS	collection of Stig Lundberg, Lulea, Sweden
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Wolfgang Schawaller
VSPC	author's collection, Národní muzeum, Praha
WKES	collection of Willy Kronblad, Ekenässjön, Sweden

The shades of the colours used in the descriptions were named in accordance with PAULT (1958). The localities of the type material are quoted according to the original labels, while those of additional material are transcribed.

A. Taxonomic value of the coloration variability in the *Cantharis* group of genera

Species included in the *Cantharis* group of genera exhibit considerable intraspecific variability of coloration. In some species, the coloration of elytra is most variable (yellow to black), usually accompanied with lighter or darker coloration of other body parts, such as head, pronotum, and legs. Phenotypically aberrant individuals and populations were separated at the specific or infraspecific levels in the past.

Three basic types of coloration variability can be distinguished:

(1) Intrapopulation variability, where the colour varies only to a small degree, and no clear-cut colour types can be discerned (e.g. coloration of pronotum in *Cantharis nigricans* (Müll.)). This type of polychromy can be accompanied with geoclineal variability, especially in species inhabiting large areas (e.g. coloration of elytra in the populations of *Cantharis rufa* L. from Central Asia), or with ecoclineal variability (coloration of head and/or legs in *Cantharis livida* L.). This type of variability causes almost no taxonomic problems, especially as regards species occurring in well explored regions, such as Europe.

(2) Geoclineal variability, where the coloration tends to vary geographically. For example, individuals of *Cantharis rufa* L. from the temperate zone of the Palaearctic have entirely yellow elytra, those inhabiting more southern parts of species' area (Central Asia, Primorye, Korea) have elytra more or less darkened laterally, while the elytra are entirely black in individuals from the southernmost populations (Tajikistan). Certain groups of populations with this type of variability were separated as "species" or "varieties" in the past. Currently, they were often treated as subspecies (cf. ŠVIHLA, 1992).

(3) Ecoclineal variability, where the distribution of coloration types is patchy within a region. This type of variability is exemplified by *Cantharis livida* L. Individuals of this species have black elytra in the northern and central Europe, while those living in southern Europe and in the Middle East have yellow elytra (with somewhat darkened apical portion in central and southern Italy). However, individuals with dark elytra are known also from the mountains of the Balkan Peninsula (Bulgaria, Montenegro), in the mountains of north-western Turkey, and in some parts of Sicily. These mountain populations are surrounded by populations with yellow elytra. Individuals with transitional brown coloration of elytra are occasionally found at some altitude. This type of variability is caused by the distribution of environmental factors, such as temperature

or humidity, which influence the ontogenetic development of beetles. In *Cantharis livida* L., some aberrantly coloured populations are sometimes separated at the subspecific level.

It is evident from the brief survey presented above, that colour varieties have much smaller taxonomic value than believed previously. The first type of variability needs not be considered in taxonomic studies. On the other hand, both other types of variability led some authors, including myself, to separate some populations at the subspecific level. This was caused by scattered data from certain regions in the case of geoclinal variability, and by ignoring the allopatric distribution of phenotypically similar populations and by the rarity of transitional forms in the case of ecoclinal variability. It is possible to separate some populations from clinally variable species at the subspecific level. Nevertheless, I think that one or both of the following conditions must be fulfilled: (1) geographical isolation (e.g. oceanic islands, mountains surrounded by lowland deserts), and (2) differences in coloration are accompanied with other morphological characters that do not exhibit clinal variability and are not sufficient to justify a separation of the given population at the specific level.

Taking this into account, I propose here the following new synonymies (see ·VIHLA, 1992 for primary data on the variability and distribution of the taxa). Another set of new synonymies is proposed in the next chapter.

***Cantharis rufa* Linnaeus, 1758**

Telephorus tenuelimbatus Ballion, 1870, **syn.n.**

Cantharis turkestanica Pic, 1913, **syn.n.**

***Cantharis forticornis* Heyden, 1885**

Cantharis nigropubescens Barovskij, 1926, **syn.n.**

***Cantharis oculimarginalis* Hicker, 1935**

Cantharis oculimarginalis ferganica Švihla, 1992, **syn.n.**

B. Review of the *Cantharis* species with dark elytra from Turkey and adjacent regions

MAGIS (1972) observed, that *Cantharis fusca* L. and allied species significantly differ from the remaining *Cantharis* species in the form of the aedeagus. Unfortunately, *C. fusca* is the type species of the genus *Cantharis* L. Consequently, it would be necessary to transfer all, but three or four species, to another genus. WITTMER & KASANTSEV (1997) attempted to solve the situation by dividing the genus *Cantharis* L. in four subgenera, incl. *Telephorus* Schaeff., and by designing *Cantharis pellucida* F. as the type species of the latter subgenus which would contain a majority of species now included in the genus *Cantharis*. However, *C. fusca* was already designed as the type species of *Telephorus* Schaeff. by LATREILLE (1810), so that Wittmer's and Kasantsev's action is invalid. Hence, *Telephorus* Schaeff. is a junior objective synonym of *Cantharis* L. In addition, the differences between *C. fusca* group and the remaining *Cantharis* species are too pronounced to be at the subgeneric level. The group requires separation at the generic level to meet the criteria applied to other taxa in the family Cantharidae (e.g.

Rhagonycha Esch. versus *Armidia* Muls.).

For the sake of the stability of zoological nomenclature, I do not intend to make any change. I asked the International Commission of the Zoological Nomenclature to use its plenary powers to change the type species of the genus *Cantharis* L. Until this problem is solved, I accept the genus *Cantharis* L. as subdivided in three subgenera: *Cantharis* s.str. (incl. *C. fusca* group of species), *Cyrtomoptila* Motsch. (= *Absidiella* Wittm.), and *Taiwanocantharis* Wittm.

***Cantharis* (s.str.) *rustica* Fallén, 1807**

Cantharis (Telephorus) rustica var. *mimithorax* PIC, 1910: 49, **syn.n. Holotype**, ♂, "Asia minor, Goek-Dagh, v.Bodemeyer" (MNHN).

Cantharis albanica PIC, 1947: 5, **syn.n. Holotype**, ♀, "Albanie" (MNHN).

Additional material examined. Turkey, Abant Gölü, 1200-1400 m, 6.vi.1966, J. Klapperich, 8 ex. (NHMB); 31.v.1992, Z.Švec et J.Kondler, 7 ex.; Prov. Zonguldak, Safranbolu, 1000 m, 4.-5.vi.1996, M. Knížek, 1 ex. (all VSPC); Gümeshane, 80 km S Trabzon, 8.vi.1967, A. Richter, 1 ex.; Elmalik nr. Bolu, 950 m, 25.v.1967, W. Wittmer, 2 ex.; Bolu, 27.v.1970, W. Wittmer, 2 ex.; Derinje, 1.-16.v.1919, L. MacDavis, 1 ex.; Prov. Kütahya, 4 km NE Domanie, 29 53N 29 36E, 900 m, 22.v.1985, Rausch et Ressler, 1 ex.; Kuruca gec., 1800 m, V. Ríša et Z. Košťál, 1 ex. (all NHMB).

Coloration variability. Pronotum mostly egg-yolk yellow to saffron yellow, mostly with central dark spot, rarely entirely yellow, spot is sometimes strongly enlarged, so that only narrow yellow borders of pronotum remain. Basal 2/3 of femora and apical portions of anterior tibiae saffron yellow or yellow coloration diminishing to entirely black legs. Darker coloration of legs is usually connected with larger spot on pronotum.

Aedeagus see MAGIS (1972).

Distribution. Europe, N Turkey.

Remarks. Taxa synonymised herein are the most extreme colour forms. In the environment of Abant Gölü, all colour forms occur, probably depending on the altitude.

***Cantharis* (s.str.) *annularis* Ménériés, 1836**

Cantharis oculata GEBLER, 1827, nec Thunberg, 1784 (now *Hedybius*)

Cantharis nigrolabrus PIC, 1915: 21, **syn.n. Holotype**, ♀, "???", Grece" (MNHN).

Additional material examined. Turkey: W of Erzincan, 20.vi.1973, D. Bernhauer, 6 ex.; Prov. Ankara, Kizilcahaman, 24.-26.v.1969, C. Holzschuh, 2 ex.; Prov. Adana, Bey Dag, Küçükgezbeyli, 1600 m, Aspöck, Rausch et Ressler, 9 ex.; Jeni-Hisar, 30.iv.1967, Klapperich, 1 ex (all NHMB); Konya env., Beysehir, 30.v.1996, M. Snížek, 1 ex.; Elmali env., Sinekibeli gec. 1400-1600 m, 16.vi.1996, P. Zahradník, 1 ex.; Prov. Adana, Findikli, 1200 m, 26.v.1993, V. Švihla, 1 ex.; Pozanti, 10.vi.1992, Z. Švec, 1 ex. (all VSPC); Iran, Kurdistan, 20 km S Divandarrek, 1300 m, 11.v.1976, Holzschuh et Ressler, 1 ex. (NHMB).

Coloration variability. Pronotum egg-yolk yellow with pair of central dark spots, which can be enlarged and connected one another, so that occupying 1/2 of width of pronotum. Anterior femora yellow or more or less longitudinally darkened, middle and posterior ones black, except of yellow knees. Anterior tibiae always yellow, middle and posterior ones more or less darkened. Very rarely are all legs entirely black (*C. nigrolabrus*). This coloration of legs is typical for populations of western and central Europe, Balkan peninsula and Turkey. Eastern populations east of the Carpathians are characterised by entirely yellow legs.

Aedeagus see MAGIS (1972).

Distribution. S Europe, Turkey, NW Iran, S Siberia, Kazakhstan, Mongolia.

C. annularis Mén. differs from *C. oculata* Gebler only by the coloration of the legs, which are lighter in the steppe zone of Eurasia. Other morphological characters including the aedeagus are the same.

***Cantharis* (s.str.) *bilunata* (Marseul, 1864)**

Figs 1-2, 11

C. bilunata var. *dilutipes* PIC, 1906a: 82, **syn.n. Holotype**, ♀, "Amasia" (MNHN) [The locality Amasia is almost surely confused, because this species does not occur in northern Turkey and pale coloured forms are hitherto known only from Syria].

Cantharis bilunata var. *distincticollis* PIC, 1906a: 82, **syn.n. Holotype**, ♀, "N.Syrien, Ladikye, v.1885, Dr F.Leuthner" (MNHN).

Additional material examined. Turkey: Prov. Adana: Adana, 22 ex.; Karaisali, 29.iv.1967, W. Wittmer, 11 ex.; Mixis, 10.-13.v.1970, C. Holzschuh, 1 ex.; Prov. Hatay, Antakya, 17.v.1985, K. Wellschmied, 1 ex.; Orontes, 9 km E Antakya, 19.iv.1979, Kinzelbach, 1 ex.; 15 km N Mezitli, 800 m, 11.v.1969, W. Wittmer, 9 ex.; Marash - Gölbashi, 18.v.1969, W. Wittmer, 1 ex.; Burc nr. Gaziantep, 29.iv.1966, Turkey Exped. Naturh. Mus. Wien, 2 ex. (all NHMB); Altiközü, 22.iv.1992, J. Kapler, 3 ex.; Prov. Adana, Yumurtalik, 22.v.1993, V. Švihla, 1 ex.; Prov. Icel, Kuntukus nr. Silifke, 16.-19.v.1994, P. Průdek et J. Kovalovský, 1 ex.;

Syria: Jisr ech Chafuour, 4.iv.1982, Heinz, 2 ex.; Homs lake env., 8.v.1982, J. Kratochvíl et O. Brodský, 10 ex.; Apamea ruins, 14.iv.1989, J. Macek, 9 ex. (all VSPC); Latakia, 9 ex.; W Hama, Squalbeie, 30.iii.1979, Kinzelbach, 1 ex.

Israel: Ben Shemen forest SE Tel Aviv, 5.-22.iv.1987, Heinz, 1 ex. (all NHMB).

Coloration variability. Pronotum yellow, mostly with pair of small spots on disc, spots can be enlarged or connected one another, so that only margins remain yellow, rarely is pronotum entirely yellow. Anterior legs honey yellow or femora longitudinally darkened, middle and posterior legs mostly with sepia brown femora except yellow knees or only bases of femora darker or femora entirely yellow. Middle tibiae mostly entirely yellow, rarely sepia brown with yellow bases. Paler coloration of pronotum is connected with paler legs. Elytral pubescence mostly brown, rarely yellow.

Aedeagus - Figs 1-2, female pronotum - Fig. 11.

Distribution. Central part of S Turkey, Syria, Israel.

Remarks. *C. bilunata* (Mars.) and following three species form a natural group characterised by strongly shortened laterophyses.

***Cantharis* (s.str.) *delagrangi* Delkeskamp, 1939 stat.n., sp.rediv.**

Fig. 3

Cantharis marginiventris var. *delagrangi* DELKESKAMP, 1939: 75. **Holotype**, ♀ (MNHN), "Asie min., Anatolie, C.D. 1888"

Cantharis marginiventris var. *ottoi* DELKESKAMP, 1939: 75, **syn.n. Holotype**, ♀ (MNHN), "Asia minor";

Cantharis marginiventris var. *trisinaticollis* DELKESKAMP, 1939: 75, **syn.n. Holotype**, ♀ (MNHN), "Asia min."

Additional material examined. Bulgaria, Burgas, v.1891, Flach, 1 ex.;

Greece: 20 km W Alexandroupolis, 22.iv.1976, Heinz, 4 ex. (all VSPC);

Turkey: European part: Mandra, 20.v.1933, Fuss, 4 ex.; Edirne, v.1894, Flach, 3 ex.; Lüleburgaz, 18.v.1968, C. Holzschuh, 1 ex.;

Turkey: Asian part: Balikesir, 10.iv.1979, D. Bernhauer, 1 ex.; Uzunköprü - Pehlivaköy, 17.iv.1979, Heinz, 4 ex.; Bos Dag, Bodemeyer, 2 ex.; Karabey, Bursa, 20.vi.1930, Ajtai, 3 ex.; Gölbasi (Ankara), 25.v.1967, Turkey Exped. Naturh. Mus. Wien, 1 ex.; Konya, Bodemeyer, 1 ex.; 1899, Korb, 2 ex. (all NHMB); Gürem, 9.vi.1994, J. Rolčík, 1 ex.; Gamlibel gec., 31.v.1994, Z. Švec, 1 ex. (all VSPC).

Coloration variability. Anterior legs yellow, femora more or less darkened basally, middle and posterior legs entirely black or with sienna brown knees. Coloration of pronotum like in preceding species, but never entirely yellow, pair of spots mostly connected one another.

Aedeagus very similar to that of preceding species, from which it differs by form of dorsal part (Fig. 3), form of female pronotum like in preceding species.

Remarks. PIC (1937) described *C. marginiventris* var. *delagrangei*; var. *ottoi*; var. *trisinatithorax* as aberrations, so these name are not available according to the Code, but DELKESKAMP (1939) used Pic's names as varieties, so that he made them valid.

Distribution. SE Bulgaria, NE Greece, NW Turkey (including European part).

C. delagrangei (Delk.) is closely related and very similar to *C. bilunata* (Mars.), from which it differs by narrower dorsal part of the aedeagus (without any transitional forms) and by darker coloration of middle and posterior legs.

***Cantharis* (s.str.) *marginiventris marginiventris* (Reiche & Saulcy, 1857) Figs 4-7, 12**

Cantharis funebris var. *bloundana* PIC, 1915: 29, **syn.n. Holotype**, ♀, "Bld" (MNHN).

Cantharis funebris var. *postarcuata* DELKESKAMP, 1939: 9, **syn.n. Holotype**, ♂, "Jerusalem" (MNHN).

Cantharis funebris var. *insinatithorax* DELKESKAMP, 1939: 9, **syn.n. Holotype**, ♂, "Env. Beyrouth, 13.iv.1936, Charés" (MNHN).

Additional material examined. Turkey: Namrun, 18.-25.v.1969, 3 ex.; Kuruca gec., 1800 m, V. Ríša et Z. Košťál, 6 ex.; Prov. Hakkari, Tanin Tanin gec., E Uludere, 1600 m, 8.vi.1978, C. Holzschuh, 3 ex. (all NHMB); Prov. Adana, Findikli, 1200 m, V. Švihla, 9 ex.; Kizilcik, Tunceli env., S. Kadlec, 1 ex.;

Syria: basalplateau, Salkhad, 900-1200 m, 5.iv.1988, Heinz, 5 ex.; Homs lake, 6.v.1982, O. Brodský, 4 ex. (all VSPC); Jaffa, 4 ex.; Aleppo, 1 ex.; Damascus, 4 ex.; Antilibanon, Zabadani, 2000 m, 3.v.1989, J. Macek lgt., 6 ex.; 6 km N Salhad, 6.iv.1979, Kinzelbach, 2 ex.;

Lebanon: Djezin, 2 ex.; 40 km NE Beirut, 1200 m, 24.iv.-2.v.1966, Paulus, 3 ex.; Beirut, 2.vii.1910, 2 ex. (all NHMB); Chtaura, 20.v.1936, Všetěčka, 3 ex. (VSPC);

Israel: Jerusalem, 11.iii.1933, 3 ex.; Golan, En Ziwan env., 800 m, 4.iv.1985, Heinz, 3 ex.;

Jordan: Tumasaya nr. Ramallah, 16.iii.1958, 1 ex.; Jubeina, Amman, 17.iv.1963, 4 ex.; Wadi Sir, 29.iii.1968, 3 ex., all Klapperich;

Iran, 80 km SE Kermanschah, Buchan, 1900-2100 m, 3 ex. (all NHMB).

Coloration variability. Head in front of eyes yellow. Pronotum egg-yolk yellow, mostly with one spot on disc, in southern populations pronotum may be entirely yellow or with pair of small spots. Tibiae entirely black or more or less brown towards tips to entirely honey yellow, including knees.

Aedeagus Figs 4-7, female pronotum - Fig. 12.

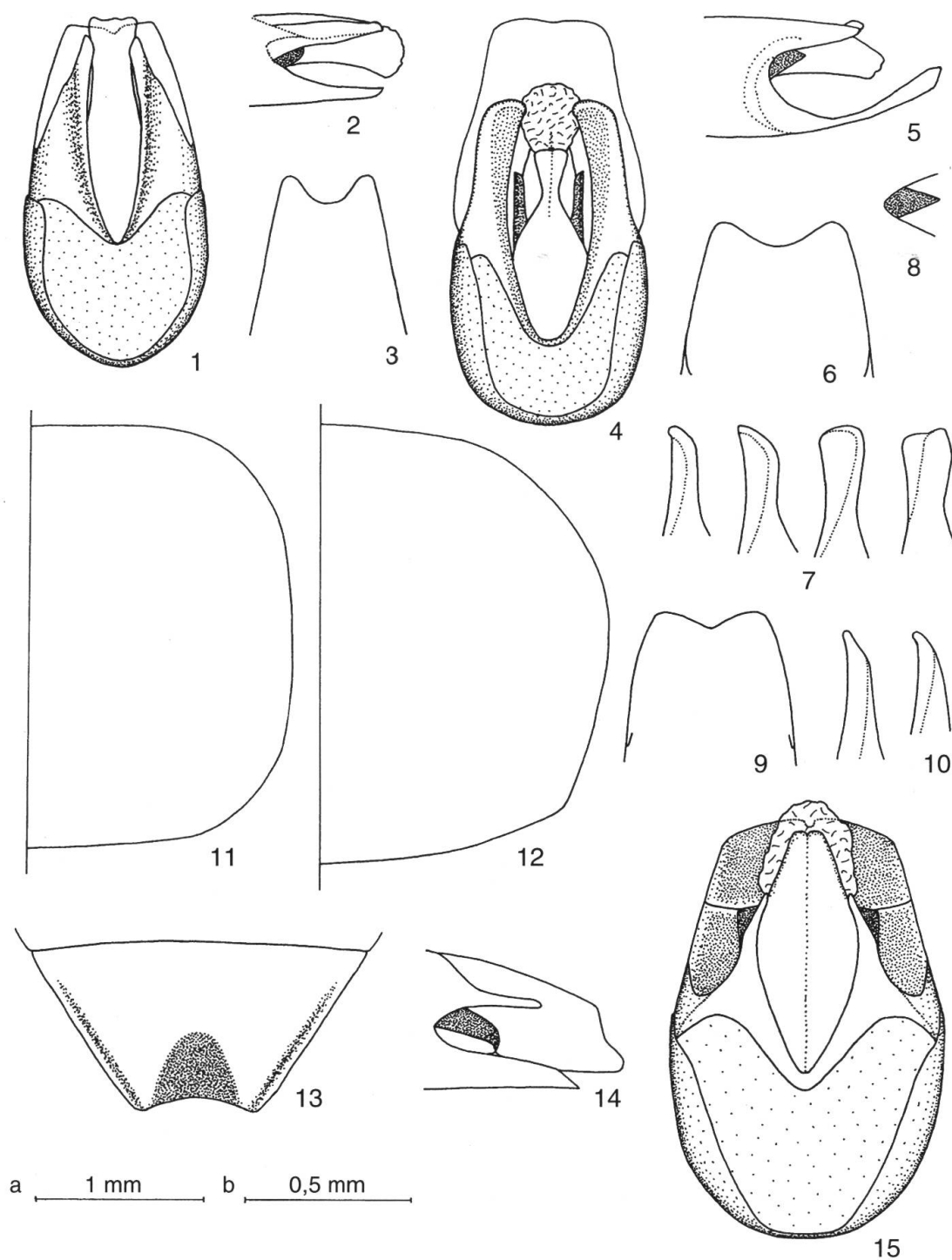
Remarks. Type material of *C. marginiventris* was not found, so that the conception of MARSEUL (1864), who was the first revising author, is used in the presented paper.

Distribution. S Turkey (Prov. Adana, Bingöl, Hakkari), W Iran, Syria, Lebanon, Israel, Jordan.

***Cantharis* (s.str.) *marginiventris funebris* (Marseul, 1864) stat.n. Figs 8-10**

Material examined. Turkey: Oyklu Dag, Mugla env., 30.iv.1970, Reiser, 2 ex.; Prov. Manisa, Akcakertikbeli gec., 7 km NE Demirci, 17.v.1983, H. Rausch et F. Ressler, 3 ex.; Sehsadi, N Turhal, 1800 m, 23.iv.1984, Heinz, 1 ex.; Mecitözü, 700 m, 27.iv.1984, Heinz, 1 ex.; Kizilcahaman, 27.v.1970, W. Wittmer, 6 ex.; Izmir, 1 ex.; Denizli - Honaz Dag, 450-1200 m, 29.iv.1969, W. Wittmer, 10 ex.; Aksehir, 23.v.1969, W. Wittmer, 1 ex.; Prov. Yozgat, 22 km W Akdagmen, 21.v.1974, C. Holzschuh, 1 ex.; Isparta, v.1934, Neubert, 2 ex.; Tasova nr. Amasya, 19.iv.1981, D. Bernhauer, 1 ex.; Kütahya, v.1934, 1 ex.; Ankara, iv.-v., Mucbe, 2 ex.; Boz Dag, Bodemeyer, 1 ex.; Karakay, Bodemeyer, 1 ex.; Yozgat, 28.v.1967, 1 ex.; Biledjek, Bodemeyer, 2 ex.; Pamukkale, 26.iv.1967, J. Klapperich, 1 ex.; Eskischehir, Bodemeyer, 1 ex.; Akschehir, 1914, Korb, 1 ex. (all NHMB); Prov. Ankara, Cukurköy nr. Denizli, 1000 m, 30.iv.1991, Z. Jindra et T. Růžička, 4 ex.; Sanycik, 9.vi.1992, Z. Švec, 3 ex.; Barla Dagi, 29.iv.1992, M. Dvořák, 1 ex. (all VSPC);

Iran: Luristan, Bodemeyer, 3 ex.; Elborz, Reitter, 1 ex. (all NHMB).



Figs 1-15: *Cantharis bilunata* (Marseul): 1, aedeagus, ventral view. 2, aedeagus, lateral view. 3, *C. delagrangei* Delkeskamp, dorsal part of aedeagus. 4-7: *C. marginiventris marginiventris* (Reiche & Saulcy): 4, aedeagus, ventral view. 5, aedeagus, lateral view. 6, variability of dorsal part of aedeagus. 7, variability of paramere. 8-10: *C. marginiventris funebris* (Marseul): 8, laterophyse, lateral view. 9, dorsal part of aedeagus. 10, variability of paramere. 11-12: pronotum of female: 11, *C. bilunata* (Marseul). 12, *C. marginiventris marginiventris* (Reiche & Saulcy). 13, *C. prusiensis* (Marseul), last sternite of female. 14-15: *C. brevipennis* Faldermann: 14, aedeagus, lateral view. 15, aedeagus, ventral view. Scale a - Figs 1-13, b - 14-15.

Coloration variability. Pronotum egg-yolk yellow, mostly with one larger spot on disc, rarely with pair of smaller spots. Legs entirely black or only anterior tibiae more or less sepia to sienna brown.

Aedeagus - Figs 8-10.

Remarks. Unfortunately, no type material of both *C. marginiventris* and *C. funebris* was found. According to the original descriptions, these two taxa differs only by the colour of the anterior portion of the head. *C. marginiventris* was described from Nabulus (Jordan), where the population possesses yellow anterior part of the head, while *C. funebris* was described from Turkey without further data, in which country most of the specimens posses entirely black head.

C. marginiventris funebris differs from the nominotypical subspecies by entirely black head in the combination with following aedeagal characters: dorsal part of the aedeagus shorter, laterophyses narrower and directed apically, parameres narrower apically. Some transitional forms with aedeagal characters between this subspecies and the nominotypical one occur in province Hakkari of Turkey and in province Kermanschahan of Iran.

Distribution. W and C Turkey, NW Iran (Elborz Mts., Luristan).

Cantharis (s.str.) *prusiensis* (Marseul, 1864)

Fig. 13

Type material of *C. prusiensis* was examined by WITTMER (1971).

Cantharis anatolica BOURGEOIS in BODEMEYER, 1900: 151. **Holotype**, ♂, "Asia minor, Eski-chéhir, v.Bodemeyer"; **paratype**, ♂, "Asia minor, Biledjek, v.Bodemeyer" (all MNHN).

Cantharis eurynota BOURGEOIS in BODEMEYER, 1900: 153, **syn.n.** Syntypes, ♀♀: "Asia minor, Biledjek, v.Bodemeyer", 2 ex.; "Asia minor, Bos-Dagh, v.Bodemeyer", 2 ex. One specimen from Bos-Dagh is here designated as **lectotype** (MNHN), other specimens are designated as **paralectotypes** (MNHN, DEIC).

Cantharis atrocapitata PIC, 1903a: 145, **syn.n.** Syntypes, ♀♀, "Angora", 2 ex. (MNHN), **lectotype** and **paralectotype** are here designated.

Additional material examined. Turkey: Prov. Ankara, Kizilcahaman, 2.vi.1986, Kadlec et Voříšek, 1 ex.; Kasecik, 1300 m, 30.v.1994, Z. Švec, 1 ex. (all VSPC); Biledjik, v.Bodemeyer, 1 ex.; Tokat, 5 ex.; Akchehir, 1900, Korb, 1 ex. (all MNHN); Prov. Izmir, 3 km N Bozdag, 1000 m, 19.v.1983, H. Aspöck, H. Rausch et F. Ressler, 4 ex.; pass nr. Bolu, 1300 m, 9.vi.1966, J. Klapperich, 2 ex.; Prov. Cardak, 47 km E Denizli, 25.iv.1983, A. Riedel, 2 ex.; Aydin, 27.iv.1967, J. Klapperich, 1 ex. (all NHMB).

Coloration variability. Coloration of pronotum vary from entirely orange through orange with pair of small, indistinct brown spots on disc to orange with mediolongitudinal black stripe, dilated in front of base of pronotum. Anterior legs entirely orange or femora more or less darkened, combined with orange or sometimes longitudinally darkened tibia. Coloration of middle and posterior legs varying from orange with apical portions of femora, basal portions of tibiae and tarsi black to entirely black legs. Coloration of female is usually generally paler.

Aedeagus see WITTMER (1971b), characteristic last sternite of female - Fig. 13.

Distribution. S Bulgaria, NW Turkey.

Remarks. Even when Bourgeois mentioned also a male in the original description, the series of syntypes consists of females only. Both *C. anatolica* and *C. eurynota* were collected in Biledjik, so that *C. eurynota* is female specimens of *C. anatolica*, synonymised by WITTMER (1971b) with *C. prusiensis*. Characteristic form of the female last sternite enables to distinguish this species from somewhat similar *C. nigricans*.

***Cantharis* (s.str.) *pulicaria* Fabricius, 1781**

Cantharis malatiensis var. *detectiventris* PIC, 1904b: 71, **syn.n. Holotype**, ♀, "Amasie (Staud.)"

Cantharis pulicaria var. *curticollis* PIC, 1906a: 82, **syn.n. Syntype**, ♂, "Corfu, Paganetti", here designated as **lectotype** (all MNHN).

Additional material examined. Turkey: Tokat, 1 ex. (MNHN); Barla Dagi, 29.iv.1992, M. Dvořák, 7 ex.; S Ilgaz, 800 m, 10.iv.1977, Heinz, 2 ex.; Prov. Corum, Metitözü, 700 m, Heinz, 2 ex. (all VSPC); Prov. Antalya: Gündoğmuş, 8.-14.v.1987, I. Rydh, 3 ex.; Yarpuz, 1200 m, 3.-11.v.1990, I. Rydh, 6 ex. (all IROS); N. Geris, 7.v.1987, S. Lundberg, 2 ex.; Fersin, 8.v.1987, S. Lundberg, 4 ex. (all SLLS); Akseki, 4.vi.1992, G. Gillerfors, 1 ex. (GGVS); Prov. Izmir, 5 km N Tire, 13.iv.1978, C. Holzschuh, 2 ex.; Denizli, Honaz Dag, 450-1200 m, 29.iv.1969, W. Wittmer, 10 ex.; Prov. Antalya, 20 km W Burdur, 1200 m, 1.v.1969, W. Wittmer, 9 ex.; Sehsadi, N of Turkal, 1100 m, 23.iv.1984, Heinz, 1 ex.; Scutari env., 1 ex.; Akschehir, v.Bodemeyer, 2 ex.; Bulghar Maaden, v.Bodemeyer, 3 ex. (all NHMB).

Coloration variability. Black stripe on pronotum can be reduced to central spot. Both synonyms fit in infraspecific variability.

Aedeagus see KASZAB (1955). Elytra are sometimes slightly shortened in female, not covering last two or three abdominal segments.

Distribution. C and S Europe, W and C Turkey.

***Cantharis* (s.str.) *brevipennis* Faldermann, 1835**

Figs 14-15

Cantharis akbesiana PIC, 1906b: 96, **syn.n.** Syntypes: "Akbès, (Staud.)", 1 ♂, here designated as **lectotype**; "Akbès" ♂♀, here designated as **paralectotypes** (all MNHN).

Cantharis brachyptera HOLDHAUS, 1920: 50, **syn.n.**

Additional material examined. Greece: Rhodes, 7 ex.

Caucasus: 2 ex. (all NHMB).

Turkey: Akbez, 10 ex. (NHMB, MNHN); Iskenderum, Belen pass, 700 m, 7.iv.1980, W. Heinz, 1 ex. (NHMB); Martavan, 32 km NW Kilis, 600 m, 15.iv.1984, W. Heinz, 1 ex. (VSPC).

Syria: Nahr al Kabir, 10 km SE bridge of Nahr Sanaubar, 6.iii.1979, Kinzelbach, 1 ex. (NHMB).

Aedeagus - Figs 14-15.

Distribution: Greece: Rhodes, S Turkey, Syria, Iraq, "Caucasus".

Remarks. Although the type material of *C. brachyptera* and *C. brevipennis* was not examined, the original descriptions very well agree with material examined and no other similar species was found in this region. *C. akbesiana* var. *abbreviata* PIC, 1906 is not available name, because it is the female from the type series, apart from preoccupation by *C. abbreviata* Fabricius, 1801.

Females of *C. brevipennis* can be distinguished from similar specimens of *C. pulicaria* with shortened elytra by first two antennomeres yellow, while only the first one is yellow in *C. pulicaria*.

***Cantharis* (s.str.) *ziganadagensis* Wittmer, 1971**

Holotype, ♂, "Türkei, Zigana Dagi, 2000 m, 22.v.1970, Wittmer et v.Bothmer"; **paratype**, ♀, the same data (all NHMB)

Additional material examined. Turkey, Kostandagi pass, 16.vi.1996, V. Skoupý, 2 ex. (VSPC).

Aedeagus see WITTMER (1971b).

Distribution. N Turkey.

***Cantharis* (s.str.) *livida* Linnaeus, 1758**

Material examined (one specimen with black elytra). Turkey, Gelibolu, 17.vi.1972, H. Ziegler (VSPC).

Aedeagus see WITTMER (1971b).

Distribution: Europe, easterly to Ural Mts., N and C Turkey, Georgia, Armenia, Azerbaijan.

***Cantharis* (s.str.) *basithorax* Pic, 1902 sp.rediv.**

Holotype, ♂, "Turc." (MNHN)

Cantharis bulgarica ŠVIHLA, 1983: 3, **syn.n. Holotype**, ♂, "Bulg.m., Sandanski, 9.vi.1970, O. Marek" (VSPC).

Additional material examined. Turkey: Prov. Gümüşhane, Kopdagi pass, 2390 m, 24.vi.1988, Kadlec et Voříšek, 1 ex.; Abant Golü, 31.v.1992, Z. Švec, 3 ex.; Ulu Dag, Bursa env., 27.v.1994, L. Skoupý lgt., 2 ex. (all VSPC); Prov. Trabzon, Zigana pass, 12.vi.1969, Osella, 1 ex. (NHMB).

Aedeagus see ŠVIHLA (1983).

Distribution. S Bulgaria, N Turkey.

Remarks. The making of a synonym by myself was caused by classifying of *C. basithorax* as a variety of quite unrelated species, *C. fusca* L. in DELKESKAMP's catalogue (1939).

***Cantharis* (s.str.) *nigricans* (Müller, 1776)**

Material examined. Turkey: Prov. Bolu: Boludag pass, 720 m, 1.vi.1986, S. Kadlec et J. Voříšek, 3 ex.; Abant Golü, 1200 m, 23.-24.vi.1996, V. Švihla, 4 ex.; Aladag Mts., Yenicaga, 1.vi.1986, S. Kadlec et J. Voříšek lgt., 1 ex. (all VSPC); Uludag Mts., Bursa env., 29.v.1966, J. Klapperich, 1 ex. (NHMB).

Georgia, Adigeni env., 6.vii.1980, Dolin, 1 ex.; Armenia, Dilizhan, 1200 m, 21.vi.1979, V. Švihla, 4 ex. (all VSPC).

Coloration variability. In the material from Abant Golü occur frequent specimens with almost entirely yellow elytra, each elytron is only narrowly black bordered.

Aedeagus see MOSCARDINI (1965).

Distribution. N and C Europe, Italy, Romania, Bulgaria, Russia, Ukraine, N Turkey, Georgia, Armenia.

***Cantharis* (s.str.) *nigra* (DeGeer, 1774)**

Figs 18-19

Cantharis (Telephorus) bicolor var. *discotestacea* Pic, 1905a: 186, **syn.n. Holotype**, ♂, "Morea, Kalavryta, Holtz" (MNHN).

Additional material examined. W Turkey, 6-10 km W of Feithye, 26.-31.v.1997, J. Probst, 2 ex.; Armenia, Geghard, 20.vi.1981, Z. Černý, 1 ex. (all VSPC); Caucasus, 1 ex. (NHMB).

Aedeagus Figs 18-19.

Distribution. Europe, W Turkey, Armenia, "Caucasus".

***Cantharis* (s.str.) *smyrnensis* (Marseul, 1864)**

Figs 16-17

Holotype, ♀, "Smyrne" (MNHN)

Telephorus rufocapitatus GEMMINGER, 1870: 120 (= *ruficeps* Kiesenwetter, 1859 nec Blanchard, 1846), **syn.n.**

Cantharis hellenica HEYDEN, 1883: 310, **syn.n. Holotype**, ♂, "Veluchi, Krüper" (DEIC)

Cantharis morfini Pic, 1901: 25, **syn.n. Holotype**, ♀, "Mt. Liban, Aschout" (MNHN)

Cantharis eduardi Pic, 1914: 52, **syn.n. Holotype**, ♂, "Turcia" (MNHN)

Cantharis fulvicollis graecoturca WITTMER, 1986: 101, **syn.n.**

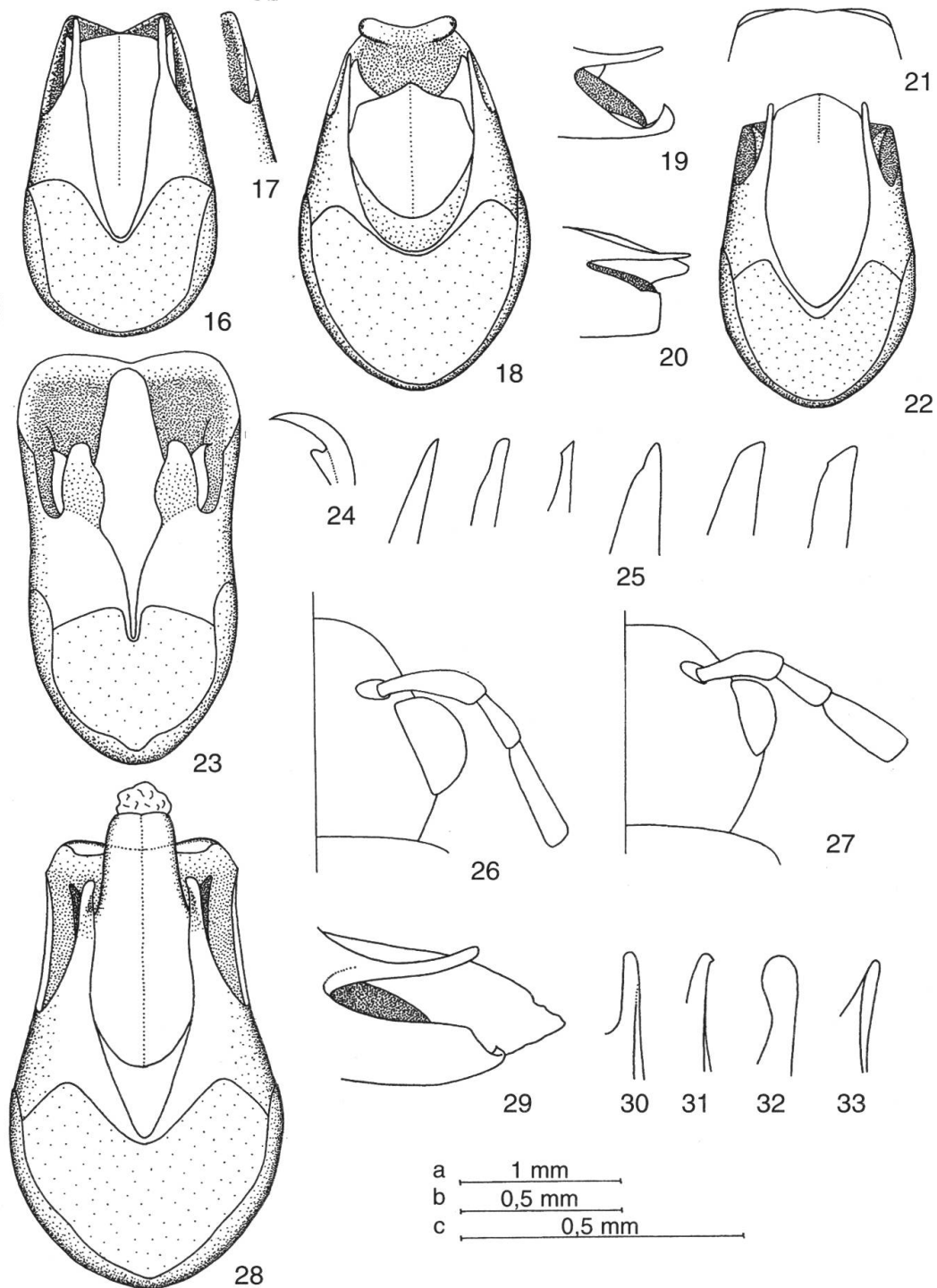
Type material of *C. ruficeps* Kiesw. was not found, but material from Zante (type locality) was examined.

Additional material examined. Turkey: Prov. Isparta, E of Egridir, 1000 m, 26.v.1981, Ressler, Rausch et Aspöck, 1 ex.; 20 km W of Bolu, 26.vii.1973, Wewalka, 3 ex.; Kizilcahaman, 16.-19.vi.1971, Bernhauer, 1 ex.; Serik, 5.v.1969, W. Wittmer, 3 ex.; Namrun, 8.vi.1968, Wewalka, 1 ex. (all NHMB); Konya, 31.v.1996, Z. Švec, 3 ex.; Camlibal pass, S of Tokat, 1600 m, 22.vi.1987, Heinz, 1 ex.; Prov. Cankiri, 23 km N of Cankiri, 1100 m, 20.-21.vi.1996, Z. Malinka, 2 ex.; S of Antalya, 3.-4.v.1997, T. Růžička, 2 ex. (all VSPC);

Syria: Aleppo, 1 ex. (NHMB); Krak de Chevaliers, 7.v.1982, O. Brodský et M. Dvořák, 3 ex.; Zainie, 45 km NE Latakia, 30.iv.1982, O. Brodský, 1 ex.;

Lebanon: Khtaura, 8.-20.v.1939, Všetečka, 5 ex. (all VSPC);

Israel: Golan heights, N Orvim, Misit, 20.iv.1981, Wewalka, 2 ex. (NHMB).



Figs 16-32: 16-17: *Cantharis smyrnensis* (Marseul): 16, aedeagus, ventral view. 17, variability of lateral side of aedeagus. 18-19: *C. nigra* (De Geer): 18, aedeagus, ventral view. 19, aedeagus, lateral view. 20-22: *C. boroveci* sp.n.: 20, aedeagus, lateral view. 21, apical portion of dorsal part of aedeagus, oblique caudal view. 22, aedeagus, ventral view. 23, *C. (Cy.) cogina* Reitter, aedeagus, ventral view. 24, *C. (Cy.) pumilio pumilio* Ménétriés, protarsal claw of male. 25, *C. terminata* Faldermann, variability of laterophyse, ventral view. 26-27: head semischematically: 26, *C. quadripunctata* (Müller). 27, *C. kafkai* sp.n. 28-29: *C. kafkai* sp.n.: 28, aedeagus, ventral view. 29, aedeagus, lateral view. 30-33: laterophyse, ventral view: 30, *Metacantharis taurigrada* Bourgeois. 31, *M. araxicola* (Reitter). 32, *M. walteri* sp.n. 33, *M. torosensis* sp.n. Scale a - Figs 25-26, b - 16-22, 27-28, c - 23-24, 29-32.

Coloration variability. Coloration of head vary from entirely saffron yellow to vertex sooty and frons from posterior margin of eyes anteriorly chestnut brown. Pronotum entirely yellow, rarely with central, not sharply delimited sooty spot. Legs mostly entirely yellow, rarely femora more or less dark, their terminal portions remain yellow. Mesothorax including scutellum saffron yellow to sooty. Elytra entirely sooty, rarely basal half of suture and lateral margin of each elytron narrowly rusty. Abdomen vary from saffron yellow to black. Darker coloration of particular body parts is connected one another.

Aedeagus. Figs 16-17, see also WITTMER (1971b, 1986).

Remarks. *C. smyrnensis* is closely related to *C. fulvicollis* F., from which it differs by less turned up apices of the dorsal part of the aedeagus, as already mentioned by WITTMER (1986). This character is sufficient for the specific level (cf. differences between *C. figurata* Mannh. and *C. pallida* Goeze). Besides this, both species occur in southern Bulgaria, but *C. fulvicollis* occurs in higher altitudes (Rila Mts.), while *C. smyrnensis* in lowlands (Harmanli).

In the specimens occurring south of central Turkey, laterobasal portion of aedeagus is more or less turned up inwards as in Fig. 17 and lateral sides of it tend to be higher, so that laterophyse is almost invisible from lateral view.

Distribution. S Bulgaria, Albania, Greece, Turkey, Syria, Lebanon, Israel.

***Cantharis* (s.str.) *boroveci* sp.n.**

Figs 20-21

Holotype. ♂, "USSR, Armen., Šogar (Sevan), 2000 m, 24.v.1985, Borovec lgt." (VSPC).

Description. Head black, in front of eyes including bases of mandibles yellow to chestnut brown, maxillary palpi, tips of mandibles and antennae black. Prothorax honey yellow, pronotum with wide, mediolongitudinal sepia stripe, dilated both anteriorly and posteriorly. Meso- and metathorax and legs black, abdomen black with chestnut brown laterotergites. Elytra sepia, chestnut brown in their humeral portion.

♂. Eyes small, moderately prominent, head across eyes slightly narrower than pronotum. Antenna reaching 3/4 of elytral length, antennomeres 4-10 with lustrous impression. Surface of head very finely and sparsely punctate, sparsely brown pubescent, lustrous. Pronotum about 1/4 wider than long, its anterior margin straight, anterior angles and lateral margins widely rounded, the latter shallowly emarginate in front of almost sharp posterior angles, so that form of pronotum is moderately cordiform, posterior margin sinuate. Surface of pronotum almost impunctate and glabrous, lustrous. Elytra parallel-sided, their surface imbricate-punctate, finely and sparsely yellow pubescent, semi-lustrous. Length: 6.7 mm.

Aedeagus - Figs 20-21.

♀. Unknown.

Distribution. Armenia.

Name derivation. Dedicated to its collector, Roman Borovec, specialist in Curculionidae.

Remarks. The new species is related to *C. smyrnensis* (Mars.), from which it differs by its coloration and by the form of apical portion of the dorsal part of the aedeagus.

***Cantharis* subgenus *Cyrtomoptila* Motschulsky, 1859 stat.n.**

Cyrtomoptila MOTSCHULSKY, 1859: 398. **Type species:** *Cantharis lateralis* Linnaeus, 1758.

Absidiella WITTMER, 1972: 130, **syn.n.** **Type species:** *Pseudoabsidia kaszabi* Wittmer, 1971 = *Cantharis mongolica* Pic, 1906.

Gymnocantharis WITTMER, 1979: 328, **syn.n.** **Type species:** *Gymnocantharis himalaica* Wittmer, 1979 = *Cantharis mongolica* Pic, 1906.

Remarks. The present subgeneric definition is expanded, comparing it with that by WITTMER & KASANTSEV (1979), as follows: outer claw of all tarsi simple in female, at most thickened basally, while it is simple or with slight projection in male. It was found that *C. pygmaea* Mén. and *C. mongolica* Pic possess quite identical aedeagus, but tarsal claws possess small projections in *C. pygmaea*, while they are simple in *C. mongolica*. The subgenus *Taiwanocantharis* Wittm. with the same type of claws in both sexes differs by the shape of the head, which is longitudinal and the species seems more related to some Chinese *Cantharis* s.str. species than to the species of the subgenus *Cyrtomoptila*.

Besides the species mentioned below, this subgenus includes also: *C. pagana* Rosh, *C. gemina* Dahlg. *C. podistroides* ·vihla, *C. biocellata* Frm., *C. lucida* Pic, *C. inlateralis* Pic, and probably further ones, not at my disposal at this moment. All species of this subgenus have a similar type of the aedeagus, especially characterised by the deep and almost sharp incision between bases of the parameres.

***Cantharis (Cyrtomoptila) lateralis* Linnaeus, 1758**

Cantharis lateralis afghana ŠVIHLA, 1992: 316, **syn.n.**

Material examined. Turkey: Prov. Bolu, Aladag Mts., Yenicaga, 725 m, 1.vi.1986, 1 ex.; Prov. Ankara, Koroglu Daglari Mts., Kizilcahaman, 2.vi.1986, 1 ex.; Prov. Konya, Obruk Yabasi, Sarayonü, 5.vi.1986, 1 ex., all Kadlec et Voříšek lgt.; Prov. Antalya, Sinekçibeli gec., 1400-1600 m, 16.vi.1996, V. Švihla, 1 ex.; 30 km S Elmali, 1400 m, 28.v.1991, W. Kronblad, 1 ex. (all VSPC); Kizilkaya, 7.v.1990, I. Rydh, 1 ex. (IROS); Prov. Ankara, 30 km E Ankara, 7.vii.1973, Wewalka, 4 ex. (NHMB); Georgia, Avadkhara, vii.1981, J. Voříšek, 1 ex. (VSPC).

Aedeagus see ·VIHLA (1992).

Distribution. Europe, Georgia, W Turkey, Kazakhstan, Kyrgyzstan, Afghanistan.

***Cantharis (Cyrtomoptila) cogina* Reitter, 1902**

Fig. 23

Syntypes: "Akbes", 2 ♂♂, **lectotype** and **paralectotype** is here designated.

Additional material examined. Turkey, Akbez, 5 ex. (NHMB).

Aedeagus - Fig. 23.

Distribution. S Turkey (Amanus Daglari Mts.).

***Cantharis (Cyrtomoptila) pygmaea pygmaea* Ménétriés, 1832**

Fig. 24

Cantharis inforticornis PIC, 1913: 187, **syn.n.**

Material examined. Azerbaijan: Sabirabad, 5.v.1969, Dolin, 3 ex.; Kirovabad, Babadjanides, 1 ex. (all NHMB).

Remarks. Protarsal claw (Fig. 24). Material from Uzbekistan, Iran and Afghanistan (cf. ·VIHLA, 1992) must be re-examined to solve if the specimens belong to this or to the following subspecies.

Type material of *C. pygmaea* Mén. was not examined, but it was described from Lenkoran (Azerbaijan) and the material at my disposal very well agrees with the original description.

Aedeagus (WITTMER, 1971a, 1979, and ŠVIHLA, 1992).

Distribution. Azerbaijan, Turkmenistan.

***Cantharis (Cyrtomoptila) pygmaea mongolica* Pic, 1906 stat.n.**

Gymnocanthis himalaica WITTMER, 1979: 329 **syn.n.**

Remarks. This subspecies differs from the nominotypical form by quite simple tarsal claws, while the outer claw of male pro- and mesotarsus posses a small projection (Fig.) in the nominotypical form and its coloration is also different. **Aedeagus** in all four preceding species is the same.

Distribution. Kazakhstan, Mongolia, India: Cashmere.

C. Notes on other *Cantharis* species and on the species of other genera

***Cantharis* (s.str.) *melaspis* (Chevrolat, 1854)**

Coloration variability. Head and legs entirely yellow (Iran: Kelardasht) or anterior legs chestnut to sienna brown, middle and posterior ones black, combined with yellow elytra and pronotum with central dark spot (Iran: Kuh-e Lalezar) or combined with sienna brown elytra (Turkmenistan: Eidere; Iran: Binalud Mts.).

Specimens from C Iran and Turkmenistan are distinctly smaller and darker coloured, laterophyses of the aedeagus tend to be slightly wider and parameres slightly narrower from lateral view.

Distribution. Turkey, Syria, Lebanon, Iraq, Georgia, Armenia, SW Turkmenistan, Iran.

***Cantharis* (s.str.) *melaspoides* Wittmer, 1971**

Selected material examined. Syria, Damascus, 15.iv.1987, O. Kodym, 2 ex.; Israel, Jericho, 11.iii.1973, D. Furth, 1 ex. (all VSPC).

Distribution. Described from Lebanon and Jordan, new species for the fauna of Syria and Israel.

***Cantharis* (s.str.) *cedricola* Wittmer, 1971**

Cantharis cyprogenia ŠVIHLA, 1983: 1, **syn.n.**

Remarks. Examining the type material of *C. cedricola*, I found *C. cyprogenia* only a colour form of the former species. Specimens from Cyprus and SW Turkey have entirely yellow legs, the latter tend to be partly black toward the east.

Distribution. Cyprus, S Turkey, Syria, ?Israel.

***Cantharis* (s.str.) *decolorans* (Brullé, 1832)**

Cantharis (Telephorus) parnassica Pic, 1903b: 115, **syn.n.**

Cantharis parnassica var. *latemaculata* Pic, 1905b: 161, **syn.n.**

Cantharis parnassica var. *kalavrytana* Pic, 1909: 169, **syn.n.**

Coloration variability. Head entirely terra-cotta or with black tip of clypeus or with large, postantennal transverse spot or completely black. Antennae entirely black or first two antennomeres more or less terra-cotta basally. Pronotum terra-cotta to saffron yellow with pair of median small spots, which can be enlarged and fused to one spot. Prosternum terra-cotta or black, scutellum terra-cotta, black bordered or black. Meso-

and metasternum and abdomen black, last one yellow bordered. Elytra yellow to terra-cotta or black. Legs black or femora and tips of tibiae in different degree terra-cotta.

Remarks. WITTMER (1971b) examined the type material of the first two synonyms above. I synonymised the last one basing on a specimen from Kalavryta (VSPC). The original description of *C. decolorans* agree very well with the material from Pendayi (NHMB) which is at my disposal.

Distribution. C and S Greece.

***Cantharis* (s.str.) *ciliciensis* Bourgeois in Bodemeyer, 1900**

Coloration variability. Pronotum entirely yellow (Iran: Kelardasht).

Distribution. S Turkey, SE Azerbaijan, NW Iran.

***Cantharis* (s.str.) *pamphylica* Wittmer, 1971**

Coloration variability. Head entirely yellow or basal portion of it more or less black. Pronotum yellow or with median dark spot or with not sharply delimited mediolongitudinal stripe (Turkey: Prov. Hakkari).

Distribution. SE Turkey, NE Iraq.

***Cantharis* (s.str.) *quadripunctata* (Müller, 1776)**

Fig. 26

Selected material examined. Greece: Lesbos, 8 km E Plomári, 17.v.1995, D. Grimm, 1 ex. (SMNS).

Armenia: Cakhadzor, 11.v.1988, 1 ex. (VSPC).

Iran: E Iran, Taftan, Tamandan, 2100 m, 17.-18.iv.1973, Exped. Nat. Mus. Praha, 2 ex. (NMPC); Iran, Kerman, Bam, Djebal Barez, 23.iv.1971, 2 ex. (NHMB).

Remarks. The specimens from eastern Iran are entirely yellow except of sienna brown elytra. Dorsal part of the aedeagus is provided with a pair of transverse bulges, teeth on them are very slight to absent.

It is a very variable species, regarding both coloration of the body and of the apex of dorsal part of the aedeagus. It is possible that *C. quadripunctata* is composed of several microspecies, but it is necessary to examine a very large material from different localities to solve this problem.

Distribution. N and C Europe, Russia, Romania, Bosnia, Bulgaria, Greece: Lesbos, Turkey, Armenia, Iran.

***Cantharis* (s.str.) *kafkai* sp.n.**

Figs 27-29

Holotype, ♂, "Iran, Chalus - Karaj, Marzan Abad, 3000 m, 18.vi.1997, M. Kafka lgt." (VSPC); **paratype**, the same data 1 ♀ (VSPC).

Description. Head black, in front of eyes orange to rusty, tips of mandibles and last segments of maxillary palpi chestnut brown. Antennae black, first three antennomeres more or less paler basally and ventrally, antennomere 1 entirely rusty in female. Pronotum entirely terra-cotta in female, with pair of mediolongitudinal, sinuate, not sharply delimited black stripes, starting almost on basal margin and reaching 2/3 of pronotal length anteriorly. Prosternum rusty, meso- and metathorax black, abdomen black, rusty bordered laterally, last segment rusty. Legs sooty to black, tips of tibiae more or less lighter. Elytra entirely terra-cotta in female, narrow basal portion and suture to 1/3 of its length black in male.

♂. Eyes relatively small and less prominent (Fig. 27), head across eyes distinctly narrower than pronotum. Antenna very slightly exceeding over elytral midlength, first antennomeres - Fig. 27. Surface of head very finely punctate and brown pubescent, semi-lustrous. Pronotum distinctly wider than long, almost semicircular, posterior angles obtusely rounded, posterior margin very slightly sinuate, Surface of pronotum very finely punctate and yellow pubescent, semi-lustrous. Surface of elytra imbricate-punctate, yellow pubescent, matt.

Aedeagus - Figs 28-29.

♀. Eyes smaller than in male, head behind eyes parallel-sided and further roundly narrowed posteriorly. Antenna very short, only slightly exceeding over humeral bulges. Pronotum almost by 1/3 wider than long, transversely oval.

Length ♂♀: 9.4 - 10.4 mm.

Remarks. The span of the variability of the aedeagus in *C. kafkai* is coincidental with that in *C. quadripunctata* (Müll.). *C. kafkai* differs by its body form as follows: antenna reaching 2/3 of elytral length in male and 1/3 of that in female in *C. quadripunctata*; antennomere 3 is 2× longer than 2 in *C. quadripunctata*, but 1/3× longer in *C. kafkai*. Eyes are larger, strongly prominent, and head behind eyes is more narrowed posteriorly in *C. quadripunctata* (cf. Figs 26-27). Pronotum is generally narrower in *C. quadripunctata*, too. According to its body form, *C. kafkai* sp.n. seems closer related to *C. terminata* Fald.

Distribution. NW Iran.

Name derivation. Dedicated to its collector, Marek Kafka, a specialist in the family Buprestidae.

Cantharis (s.str.) *terminata* Faldermann, 1835

Fig. 25

Type material of *C. terminata* and of *C. melanoscelis* was not examined, but the descriptions very well agree with the material at my disposal and, besides, already MARSEUL (1864) mentioned possible synonymy of *C. terminata* and *C. sudetica*.

Cantharis melanoscelis KOLENATI, 1846: 41, **syn.n.**

Cantharis sudetica LETZNER, 1846: 75, **syn.n.** Syntypes: "Schlesien, Letzner", 6♀♀, one of them is here designated as **lectotype**, the others as **paralectotypes** (DEIC)

Telephorus fissicollis FAIRMAIRE, 1884: 179, **syn.n.** **Lectotype** and **paralectotype** ♂♂: "Liban central", (MNHN).

Cantharis sudetica var. *vesubiella* BOURGEOIS, 1893: 19, **syn.n.** **Holotype**, ♂, "Lantosque, des Gozis" (MNHN).

Cantharis dahlgreni WITTMER, 1984: 1, **syn.n.** **Holotype**, ♂: "Griechenland, Kastri bei Tripolis, 19.v.1974, G. Dahlgren"; **paratype**, the same data, 1♀ (NHMB).

Additional material examined is from France, Italy, Austria, Czech Republic, Slovakia, Bulgaria, Greece, Turkey, S Russia, Georgia, Armenia and Azerbaijan.

Coloration variability. Head black, in front of eyes egg-yolk yellow to terra-cotta, tips of mandibles and sometimes also maxillary palpi darker. First two antennomeres yellow, sometimes darkened dorsally, following ones brown, mostly with yellow bases. Pronotum yellow with two small brown to black spots, which mostly fusing together and sometimes enlarging, so that only margins of pronotum remain yellow. Anterior legs from almost entirely yellow to almost entirely dark, but always relatively lighter than middle and posterior ones, in which mostly only basal half of femora and bases of tibiae are yellow, but they can be also entirely black. Prosternum yellow, meso- and metathorax black. Elytra from yellow with black tips or also with sutural margin black to entirely

black. Abdomen black, segments yellow bordered.

Remarks. The newly synonymised taxa differ by their coloration only. The variability of laterophyses does not seem correlated with the coloration of the body or biogeographically. The form of laterophyses, observed from the ventral view, also depends on their turning aside.

The form with dark elytra is known from France, Slovakia, Bulgaria, Greece and S Russia, but not exclusively from these regions.

Aedeagus see WITTMER (1971b), variability of laterophyses as in Fig. 25.

Distribution. Europe without England and Iberian Peninsula, Turkey, Lebanon, Georgia, Armenia, Azerbaijan, NW Iran.

***Cantharis* (s.str.) *kervillei* Pic, 1932 stat.n.**

Cantharis assimilis var. *kervillei* PIC, 1932: 17. **Holotype**, ♀, "Region d'Angora" (MNHN).

Cantharis muelleri HICKER, 1955: 55, **syn.n.**

Remarks. *C. muelleri* Hicker, not rare in the northern part of Turkey, is undoubtedly conspecific with *C. kervillei* Pic.

Distribution. Czech Republic, Slovakia, Poland, Austria, Hungary, Romania, N Turkey.

***Metacantharis discoidea* (Ahrens, 1812)**

Cantharis (Metacantharis) semidiscoidalis PIC, 1909: 169, **syn.n. Holotype**, ♀, "Parnasse, 1907" (MNHN).

Additional material examined. Greece, Mt. Olympos, 22.vi.1991, M. Dvořák, 2 ex.; 4.vi.1937, Bartoš, 1 ex. (all VSPC).

Remarks. Already PIC (1909) and WITTMER (1969) mentioned the possibility of the synonymy proposed here. The material examined, in which the coloration varies from normally coloured specimens to those having elytra almost entirely dark and the rest of humeri brown, allows to establish the new synonymy.

Distribution. Europe.

***Metacantharis taurigrada* Bourgeois in Bodemeyer, 1900**

Figs 30, 33

Metacantharis angorensis PIC, 1903a: 146, **syn.n. Holotype**, ♀, "Angora" (MNHN).

Selected material examined (specimens with entirely yellow pronotum only): Turkey, Ilgaz Daglari Mts., 1200 m, vi. Muche, 1♂, 1♀ (NHMB).

Remarks. The examination of the aedeagus allows the establishing of the new synonymy.

Distribution. Turkey, Syria.

***Metacantharis araxicola* (Reitter, 1891)**

Figs 31, 34

Metacantharis araxicola var. *disparipennis* BOURGEOIS in BODEMEYER, 1900: 153, **syn.n.**

Material examined (S Turkey only). Prov. Antalya, Yarpuz, 1200 m, 3.-11.v.1990, Rydh, Lundberg et Kronblad, 7 ex.; 17.-16.v.1988, Rydh et Lundberg, 2 ex. (IROS, WKES, SLLS, VSPC); Akseki, 5.vi.1992, Gillerfors, 5 ex.; 2.vi.1996, Z. Švec, 2 ex. (GGVS, VSPC); Prov. Icel, Azdinlar, N of Erdemli, 3.vi.1993, A. Szallies, 1 ex. (SMNS); Prov. Nigde, Gümüs, SE Ulukisla, 1800 m, 3 ex. (NHMB).

Remarks. Type material, consisting of three females from locality Bulghar-Maaden, was not found, but material of near locality, Gümüs, where also the specimens with dark elytral occur, was examined.

WITTMER (1969) raised the taxon synonymised here to the species level, basing on

one male from Kütahya (W Turkey), which will be redescribed below as a new species. I suppose that synonymy established here corresponds better with material that was at disposal and with the geographical data about the type series and other material.

Coloration variability. In populations of southern Turkey, coloration of elytra varies from yellow, dark-bordered to entirely black. There seems to exist some tendency to darker coloration of elytra toward the west.

Distribution. Turkey, Armenia, NW Iran.

***Metacantharis walteri* sp.n.**

Figs 32, 35

Holotype.♂, “Turcia, Ak Daglari, 1500 m, 7.v.1991, T. Růžička lgt.” (VSPC); **paratypes:** the same data, 1♂; “Kutahia, Anatol, v.1934”, 1♂; “Anatolien, Prov. Izmir, 3 km N Bozdag, 38 22N 27 58E, 1000 m, Aspöck, Rausch et Ressler lgt.”, 1♂2♀♀ (all NHMB); “Tur. Antalya, Kas N, 24.-27.v.1991, I. Rydh lgt.” 1♂ (IROS).

Metacantharis disparipennis Bourg. sensu WITTMER, 1969: 77.

Description. Head black, in front of eyes including mouthparts yellow, tips of mandibles and of last segments of maxillary palpi chestnut brown. Antennae black, antennomere 1, basal 1/2 to 2/3 of antennomere 2 and bases of antennomeres 3-5 yellow to honey yellow. Prothorax yellow, pronotum with mediolongitudinal black stripe, which not reaching narrow both anterior and posterior margins. Form of this spot is very similar to that of *M. araxicola*. Anterior legs yellow, tarsi and femora in a different degree darkened to chestnut brown. Middle and posterior legs black, middle knees and tips of middle tibiae paler, chestnut brown. Elytra black or sooty with not sharply delimited and dark bordered paler anterior portion. Meso- and metathorax black, abdomen black, narrowly yellow bordered.

♂. Eyes relatively prominent, head across eyes as wide as or very slightly wider than pronotum. Antenna very slightly exceeds over elytral midlength. Surface of head very finely imbricate-punctate, sparsely white pubescent, lustrous. Pronotum moderately wider than long, anterior margin rounded, anterior angles slightly to very slightly developed, rounded, lateral margins very slightly diverging posteriorly, posterior angles more developed than anterior ones, rounded, posterior margin less rounded than anterior one. Surface of pronotum almost impunctate and glabrous, lustrous. Elytra very slightly dilating posteriorly, their surface rugulose, white pubescent, matt.

Aedeagus see WITTMER (1969) and Figs 32, 35.

♀. Eyes less prominent than in male, antenna shorter, reaching 1/3 of elytral length.

Length ♂♀: 7.0 - 7.7 mm.

Remarks. The new species belongs to *M. araxicola* group of species, characterised by the parallel parameres, whose apices form small, obtuse, inner hooks. Using a key proposed here, the species can be distinguished from the other members of this group.

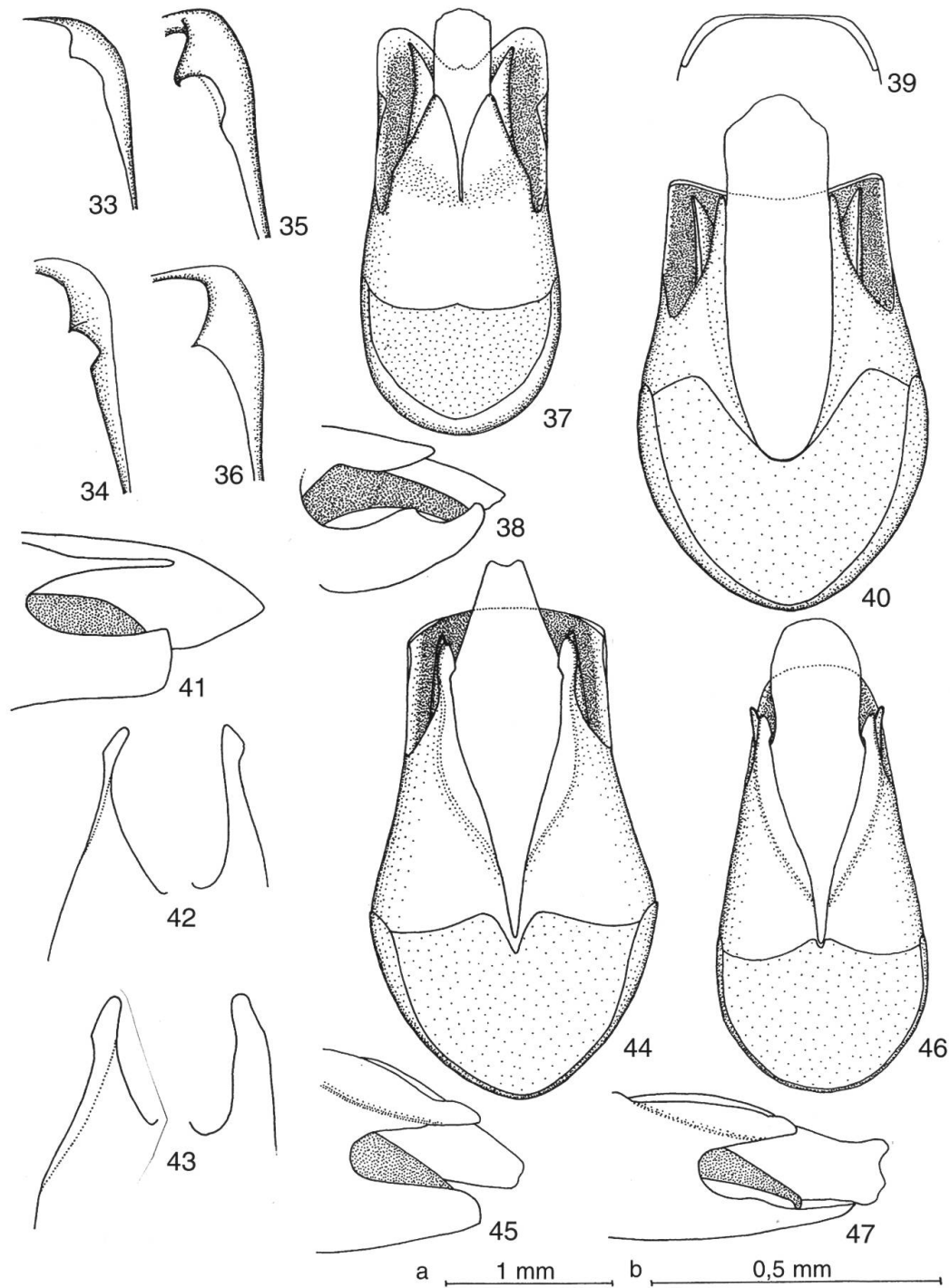
Distribution. W Turkey.

Name derivation. Dedicated to Walter Wittmer (†), who firstly recognised this species.

***Metacantharis torosensis* sp.n.**

Figs 33, 36

Holotype.♂, “TR, vill. Konya, Toros Daglari, Sertavul gec., 1610 m, 12.vi.1986, Kadlec et Voříšek lgt.” (VSPC); **paratype.**♂, “TR, Toros Daglari, Taskent, 1650 m, 5.vi.1987, Millander et Froberg lgt.” (SLLS).



Figs 33-47: 33-36: lateroapical portion of dorsal part of aedeagus, ventral view: 33, *Metacantharis taurigrada* Bourgeois. 34, *M. araxicola* (Reitter). 35, *M. walteri* sp.n. 36, *M. torosensis* sp.n. 37-38: *M. rosinae* (Pic): 37, aedeagus, ventral view. 38, aedeagus, lateral view. 39-41: *Boveycantharis tauricola* sp.n.: 39, apical portion of dorsal part of aedeagus, oblique caudal view. 40, aedeagus, ventral view. 41, aedeagus, lateral view. 42-43: paramere, ventral and lateral view: 42, *B. dimidiatipes* (Reiche & Saulcy). 43, *B. malatiensis* (Heyden). 44-45: *B. akschehirensis* Wittmer: 44, aedeagus, ventral view. 45, aedeagus, lateral view. 46-47: *B. mersinensis* sp.n.: 46, aedeagus, ventral view. 47, aedeagus, lateral view. Scale a - Figs 37-47, b - 33-36.

Description. Head entirely black or in front of eyes yellow, mouthparts honey yellow to sepia. Antennae black, under sides of antennomere 1-2 and base of antennomere 3 honey yellow to chestnut brown. Pronotum entirely honey yellow or with wide mediolongitudinal stripe, which moderately narrowing posteriorly and not reaching narrow, yellow anterior border. Legs entirely black with tarsi sooty or anterior tibiae honey yellow, anterior femora and tarsi chestnut brown. Elytra sooty to black. Prosternum yellow, meso- and metasternum and abdomen black, last one narrowly yellow bordered.

♂. Body form, structure of integument and pubescence the same like in preceding species. Length: 8.8 - 8.9 mm.

Aedeagus - Figs 33, 36.

♀. Unknown.

Remarks. It is closely related to the preceding species, from which it differs by larger body and by the aedeagal characters mentioned in the key below.

Distribution. S Turkey.

Name derivation. Named according to its distribution.

Key to the species of *Metacantharis araxicola* group

- 1 Tooth of ventroapical, turned up portion of dorsal part of aedeagus, small (Fig. 33), laterophyse parallel-sided, rounded terminally (Fig. 30), middle and posterior femora partly yellow*M. taurigrada* Bourgeois
- Tooth of ventroapical, turned up portion of dorsal part of aedeagus larger, laterophyse of different form, middle and posterior femora entirely dark2
- 2 Laterophyse dilated terminally (Fig. 32), ventroapical portion of dorsal part of aedeagus as in Fig. 35*M. walteri* sp.n.
- Laterophyse not dilated terminally3
- 3 Apex of laterophyse with small outer tooth (Fig. 31), ventroapical portion of dorsal part of aedeagus as in Fig. 34*M. araxicola* (Reitter)
- Apex of laterophyse rounded (Fig. 33), ventroapical portion of dorsal part of aedeagus as in Fig. 36.....*M. torosensis* sp.n.

Metacantharis fulvoides (Pic, 1904) comb.n.

Cantharis fulvoides PIC, 1904a: 9. Syntypes, 3♀♀: "Syrie (Staud.)", here designated as **lectotype**; "Syrie, Staudinger"; "Syrie", designated as **paralectotypes** (MNHN).

Metacantharis kostali WITTMER, 1997: 297, **syn.n. Paratype**, "Turecko, Tratum, 3.vi.1992, Kondler lgt.", 1♂ (VSPC).

Additional material examined. Turkey: Mardin, Staudinger lgt., 2 ex. (MNHN); Prov. Kars, 1 km SE Karakurt, 1400 m, 9.v.1976, Holzschuh et Ressler, 8 ex. (NHMB, VSPC).

Description. Very variable in its coloration. Darker coloration of particular body parts is connected with those of another ones. Head yellow to honey yellow or vertex black, apices of last segments of maxillary palpi and tips of mandibles sienna. Antennae yellow, in different degree darkened terminally, only antennomeres 1-2 always yellow. Prothorax yellow to egg-yolk yellow or sooty. Legs entirely yellow with somewhat darker tarsi, femora and tibiae in different degree darkened, so that only anterior tibiae, tips of anterior femora, basal half of middle tibiae and bases of posterior tibiae remain yellow. Mesothorax yellow or sooty, metathorax sooty, abdomen sooty, segments

narrowly yellow bordered. Elytra yellow, apical 1/6 to 1/2 sooty to black.

♂. Eyes moderately prominent, head across eyes very slightly wider than pronotum. Antenna reaching elytral midlength. Surface of head very finely imbricate-punctate, very sparsely yellow pubescent, lustrous. Pronotum slightly wider than long, both anterior and posterior angles rounded, lateral margins slightly rounded, both anterior and posterior margin nearly straight. Surface of pronotum like that of head punctate and pubescent, lustrous. Elytra parallel-sided, their surface rugulose, yellow and brown pubescence (depending on basic colour).

Aedeagus see WITTMER (1997).

♀. Eyes less prominent than in male, antenna shorter, reaching 1/3 of elytral length.

Length ♂♀: 5.4 - 7.2 mm.

Remarks. Two specimens from the collection of Bourgeois (MNHN) from Mardin labelled as *C. fulvoides* consist of ♂ and ♀. They well correspond with the type material and with the paratype of *M. kostali* and make possible to establish the synonymy. *M. fulvoides* is, according to the form of the aedeagus, most related to *M. haemorrhoidalis* (F.), from which it differs by the coloration of elytra and, especially, by the form of apical portion of dorsal part of the aedeagus (cf. WITTMER, 1969 and 1997).

Distribution. E Turkey, ?Syria. The occurrence in Syria must be verified, because of changes of the boundary between Syria and Turkey.

***Metacantharis rosinae* (Pic, 1902) comb.n.**

Figs 37-38

Cantharis rosinae Pic, 1902a: 24. **Holotype**, ♀, "Russ. Armem., Kasikoporan, 1901, Korb" (MNHN).

Additional material examined. Armenia, Kulp, (now in Turkey, Prov. Kars), 1901, Korb; NE Turkey: Prov. Erzurum, 24 km SW Askale, 25.iv.1974, 1 ex.; pass E Sivas, 24.v.1974, all Bernhauer (all NHMB); Askale, 8.vi.1992, S. Kadlec, 1 ex.; Prov. Kars, pass nr. Digor, 1800-2100 m, 12.v.1989, 2 ex.; pass nr. Erzincan (Ahmediye), 2100-2200 m, 26.v.1989, 2 ex.; 42 km SW Muradie, 1800 m, 10.v.1989, 2 ex. all Heinz (all VSPC).

Description. Head black, in front of eyes yellow, tips of mandibles and of last segments of maxillary palpi sienna. Antennomeres 1-2 and bases of further ones yellow, rest of antennomeres sepia. Prothorax and legs yellow, bases of tibiae very narrowly sepia. Tarsi more or less (anterior ones) darkened. Meso- and metasternum and elytra black, abdomen black, segments more or less narrowly yellow bordered.

♂. Eyes small and slightly prominent, head across eyes as wide as pronotum. Antenna reaching elytral midlength. Surface of head finely and very sparsely punctate and white pubescent, semi-lustrous. Pronotum very slightly wider than long, square with feebly rounded, nearly straight margins, especially lateral ones and with acutely rounded both anterior and posterior angles. Surface of pronotum very finely and sparsely punctate and white pubescent, lustrous. Elytra parallel-sided, their surface rugulose, finely white pubescent, matt.

Aedeagus - Figs 37-38.

♀. Antenna shorter than in male, moderately exceeding over 1/3 of elytral length. Pronotum almost by 1/4 wider than long. Elytra in different degree shortened, so that do not cover 2-4 last abdominal segments. Brachypterous to wingless, so that humeral bulges are more or less reduced.

Length ♂♀: 5.9 - 10.0 mm.

Remarks. According to the almost square pronotum and flattened parameres, this

species is related to the Central Asian group of species, from which it differs by the form of the aedeagus (cf. ŠVIHLA, 1992).

Distribution. NE Turkey, ?Armenia. The occurrence in Armenia must be verified because of changes of the boundary between Armenia and Turkey.

***Boveycanthis tauricola* sp.n.**

Figs 39-41

Holotype, ♂, "Turcia, Ak Daglari Mts., Denizpinar env., 7.v.1991, B. Zbuzek lgt." (VSPC); **paratypes**: the same data, 1♀; Turkey: Prov. Antalya: Akseki, 29.v.1989, G. Gillerfors, 9♂5♀ (GGVS, VSPC); 2.vi.1996, Z. Švec., 1♀ (VSPC); N of Akseki, 4.-5.vi.1992, I. Rydh, ♂♀; Yarpuz near Akseki, 1200 m, 17.-25.v.1988, I. Rydh, 1♂2♀ (all IROS, VSPC); W. Kronblad, ♀ (WKES); S. Lundberg, ♂ (SLLS); 29.v.-9.vi.1989, I. Rydh, ♂; 3.-11.v.1990, I. Rydh, ♂ (all IROS, VSPC); W. Kronblad, ♂ (WKES); 5.vi.1992, S. Lundberg, 2♂5♀; S of Elmali, 2.vi.1992, S. Lundberg, ♂ (all SLLS, VSPC); 21.-28.v.1991, I. Rydh, ♂ (IROS); 50 km N of Kas, 2.vi.1992, G. Gillerfors, ♂ (GGVS); NE Akseki, Seydishehir, 14.vi.1993, A. Szallies, ♂ (SMNS); Prov. Icel, N of Arslankoy, 1600 m, 37 6N 34 17E, 30.v.1983, Aspöck, Rausch et Ressler, 3♂3♀ (NHMB, VSPC).

Description. Head black, in front of eyes egg-yolk to honey yellow, black or sepia coloration sometimes reach interantennal area in dark forms. Mouth parts egg-yolk to honey yellow, apices of last segments of maxillary palpi, tips of mandibles and sometimes entire maxillary palpi chestnut brown. Antenna sienna to black, antennomeres gradually darkening, antennomere 1 and at least base of second one egg-yolk to honey yellow. Pronotum yellow with median, sepia to black spot, similar in its form to other *Boveycanthis* species, this spot not reaching both anterior and posterior margins of pronotum. Rarely in female this spot is divided into two smaller ones. Anterior legs honey yellow, tarsi and posterior sides of femora darker or femora entirely black. Middle and posterior legs black with chestnut brown basal portions of femora and tips of middle tibia or entirely black. Elytra egg-yolk to honey yellow with black apices or darker coloration gradually enlarging anteriorly along suture and lateral margins to completely black elytra. Prosternum yellow, meso- and metasternum and scutellum black, abdomen black, segments narrowly yellow bordered laterally.

♂. Eyes moderately prominent, head across eyes as wide or slightly narrower than pronotum. Antenna slightly exceeds over elytral midlength. Surface of head very finely imbricate-punctate, sparsely yellow pubescent, semi-lustrous. Pronotum slightly wider than long, anterior margin, anterior angles and lateral margins rounded, posterior angles obtusely rounded, posterior margin widely rounded to nearly straight. Surface of pronotum very finely and sparsely punctate and yellow pubescent, lustrous. Elytra parallel-sided, their surface rugulose, yellow pubescent, semi-lustrous.

Aedeagus - Figs 39-41.

♀. Eyes smaller and less prominent than in male, head across eyes distinctly narrower than pronotum. Antenna reaching elytral midlength. Pronotum about 1/5 wider than long, elytra wider than in male.

Length ♂♀: 7.1 - 11.0 mm.

Remarks. The new species is closely related to *B. hetitica* Wittm., from which it differs by the form of dorsal part of the aedeagus, central portion of its apex is not bent ventrad in the new species (cf. WITTMER, 1969). The female is larger and relatively longer than that of *B. hetitica*. *B. tauricola* and *B. hetitica* cohabit the localities Yarpuz and Akseki.

Distribution. S Turkey.

Name derivation. Derived from Latin name Taurus (=Toros Daglari Mts.). Named

according to its distribution.

***Boveycanthis hetitica* Wittmer, 1969**

Material examined (dark form only). S Turkey: Prov. Antalya: Akseki, 2.vi.1996, Z. Švec, 2 ex. (VSPC); Yarpuz, 1200 m, 17.-25.v.1988, I. Rydh, 1 ex. (IROS); 15.-16.vi.1993, A. Szallies, 3 ex. (SMNS); Prov. Adana, Ala Daglari Mts., Findikli, 1200 m, 26.v.1993, V. Švihla, 2 ex. (VSPC).

Coloration variability. This species vary in its coloration like the preceding one, so that there exist the forms with entirely black legs and elytra, too.

Distribution. S Turkey.

***Boveycanthis deserticola* Wittmer, 1969**

Material examined. S Turkey, Yaladagi nr. Antakya, 400-800 m, 7.iv.1978, Heinz, 3 ex. (NHMB, VSPC).

Syria: Djebel Drouz, 1400 m, between Soveida and Salkhad, 8.iv.1982, Heinz, 2 ex. (NHMB, VSPC); Djebel Ansariya, 1200 m, E of Sharkiya, 24.iv.1989, J. Macek, 2 ex. (VSPC).

Distribution. described from Israel and Jordan, new species for the fauna of Syria and Turkey.

***Boveycanthis rufimana* (Ménétriés, 1832)**

Material examined (dark form only). Turkey: Prov. Artvin, Yusufeli, 8.vii.1993, P. Chvojka, 1 ex.; Sanycik, 1.vi.1992, Z. Švec, 1 ex.; Yaylalar, 1400 m, 2.vii.1996, V. Skoupy, 1 ex. (all VSPC); 100 km N of Erzurum, 25.vi.1965, W. Wittmer, 1 ex. (NHMB).

Coloration variability. Also in this species exist specimens with entirely black elytra, sometimes combined with completely yellow pronotum (Sanycik).

Distribution. S Russia (Caucasus Mts.), Georgia, Armenia, Azerbaijan, N Turkey.

***Boveycanthis dimidiatipes* (Reiche & Saulcy, 1857)**

Fig. 42

Boveycanthis dimidiatipes varicolor WITTMER, 1969: 84, **syn.n. Holotype** and 3 **paratypes**: "Türkei, Tekir, 1200 m, 4.v.1967, W. Wittmer lgt.", 2♂2♀ (NHMB). Another undetermined female, because of its longer antenna and legs entirely black, belongs in *Boveycanthis*.

Additional material examined. Lebanon, Beirut, 4.iii.1956, W. Wittmer, 2 ex.

Syria, Craq de Chevaliers, 400-600 m, 5.iv.1988, Heinz, 1 ex. (all NHMB).

S Turkey, Yaladagi nr. Antakya, 400-800 m, 7.iv.1978, Heinz, 1 ex. (VSPC).

Distribution. S Turkey, Syria, Lebanon.

Remarks. The aedeagal characters (width of the apex of laterophyse and the elevation on inner side of dorsal part of the aedeagus), mentioned by WITTMER (1969), were proved variable.

***Boveycanthis malatiensis* (Heyden, 1886) sp.rediv.**

Fig. 43

Boveycanthis dimidiatipes malatiensis: WITTMER, 1969: 84. **Paratype** (syntype ?), ♂, "Mesopotam., Malatia, Staudgr, 85" (NHMB).

Additional material examined. Turkey: 40 km NW Malatya, 1100 m, 8.iv.1982, D. Bernhauer, 2 ex. (NHMB, VSPC); Nemrut Dagı, 30 km NE Adiyaman, 27.-28.iv.1997, T. Janů et T. Růžička, 4 ex. (VSPC).

Remarks. *B. malatiensis* is closely related to *B. dimidiatipes*, from which it differs by entirely black head and legs (mentioned already by WITTMER, 1969), by black pubescence of the body (white in *B. dimidiatipes*) and by wider paramere (cf. Figs 42-43). Characters on dorsal part of the aedeagus and on the laterophyse mentioned by WITTMER (1969) were found not distinguishing these two species.

Distribution. Eastern part of C Turkey.

***Boveycanthis mersinensis* sp.n.**

Figs 46-47

Holotype, ♂, "TR mer., vil. Icel, Aslanli, 7.-8.v.1994, P. Průdek et J. Kovalovský lgt." (VSPC); **paratypes**: Turkey, Prov. Icel: S Azdinlar (SE Güzeloluk), 36 45N 34 11E, 1000-1350 m, 28.-29.v.1983, 2♂1♀ (NHMB, VSPC); 14 km SSE Kirobasi (N Silifke), 36 38N 33 55E, 1200 m, 27.v.1983, 1♂, all Aspöck, Rausch et Ressler (NHMB); Aslanli, 15 km NW Erdemli, 11.-19.v.1994, D. Hauck, ♂♀ (NHMB, VSPC).

Description. Head black, maxillary palpi sooty, mandibles yellow with darker tips. Antennae sooty to black, antennomeres 1-2 more or less infuscate on under side. Prothorax egg-yolk to saffron yellow, pronotum with central black stripe, which not reaching narrow both anterior and posterior margin. Meso- and metathorax and elytra black. Legs black, apices of anterior tibiae chestnut brown, tarsi sepia to sooty. Abdomen black, segments narrowly yellow bordered.

♂. Eyes relatively small, moderately prominent, head across eyes distinctly narrower than pronotum. Antenna slightly exceeds over elytral midlength. Surface of head very finely imbricate-punctate, sparsely white pubescent, semi-lustrous to matt. Pronotum about 1/3 wider than long, anterior margin widely rounded, anterior angles rounded, lateral margins slightly diverging posteriorly, posterior angles well developed, obtusely rounded, posterior margin widely rounded. Surface of pronotum like that of head sculptured and pubescent, semi-lustrous to matt. Elytra parallel-sided, their surface rugulose, white pubescent, matt.

Aedeagus - Figs 46-47.

♀. Antenna shorter than in male, slightly exceeds over 1/3 of elytral length. Elytra relatively wider than in male.

Length ♂♀: 7.0 - 8.6 mm.

Remarks. The new species is similar and closely related to *B. akschehirensis* Wittm., from which it differs by smaller body and by the form of laterophyses, which exceed over lateral sides of dorsal part of the aedeagus and by the form of this part, which is less turned ventrad (cf. Figs 44-47).

Distribution. S Turkey.

Name derivation. Named according to its distribution (Mersin is an older name of Icel).

***Boveycanthis holzschuhi* sp.n.**

Figs 48-49

Holotype, ♂, "Anatolien, vill. Hakkari, E Uludere, Tanin Tanin gec., 2000 m, 7.vi.1978, C. Holzschuh lgt." (NHMB); **paratypes**, the same data, 2♀♀ (NHMB, VSPC).

Description. Head black, in front of eyes including mouthparts honey yellow, tips of mandibles and terminal portion of last segment of maxillary palpus sienna. Antennae sepia to sooty, antennomeres 1-2 entirely and basal portions of antennomeres 3-7 more or less honey yellow to rusty. Prothorax honey yellow, pronotum with black spot of similar form like in other species of this genus. Meso- and metathorax including scutellum black. Anterior legs yellow with darker tarsi, anterior femora basally and more or less longitudinally sepia. Middle and posterior femora sepia, tibiae yellow, more or less longitudinally and terminally sepia or entirely sepia (in male), tarsi sepia. Elytra egg-yolk yellow, apical 1/5 sooty. Abdomen sepia, segments narrowly yellow bordered.

♂. Eyes relatively small, moderately protruding, head across eyes as wide as

pronotum. Antenna reaches almost 2/3 of elytral length. Surface of head very finely imbricate-punctate, sparsely yellow pubescent, semi-lustrous. Pronotum slightly wider than long, all margins very widely rounded, both anterior and posterior angles obtusely rounded. Surface of pronotum very finely and very sparsely imbricate-punctate and yellow pubescent, lustrous. Elytra parallel-sided, their surface rugulose, yellow pubescent, semi-lustrous.

Aedeagus - Figs 48-49.

♀. Eyes slightly smaller and pronotum relatively wider than in male, so that head across eyes is slightly narrower than pronotum. Antenna shorter, reaching elytral midlength. Elytra wider, very slightly dilated posteriorly.

Length ♂♀: 7.0 - 8.0 mm.

Remarks. The new species is by its habitus and coloration very similar to *B. tatvanensis* Wittm, to which it is also related according to the form of the aedeagus. The new species differs by the shape of apical portion of dorsal part of the aedeagus, which possesses a pair of pubescent teeth and by the shape of laterophyse, which is dilated basally and exceeds over dorsal part of the aedeagus (cf. WITTMER, 1997).

Distribution. SE Turkey.

Name derivation. Dedicated to its collector, Carolus Holzschuh, a well-known specialist in Cerambycidae.

***Islamocantharis* (s.str.) *diffusa* Wittmer & Magis, 1978**

Material examined. Turkey, Prov. Hakkari, 25 km S Yuksekova, 3.vii.1989, Barries et Cate, 1 ex.

NE Iraq, Kurdistan, Penjwin, 1300 m, v.1976, 3 ex. (all VSPC).

Remarks. Described from western Iran (Zagros Mts.), new species for the fauna of Turkey and Iraq.

***Islamocantharis* (s.str.) *cyanipennis* (Faldermann) comb.n., sp.rediv. Fig. 50**

Cantharis cyanipennis FALDERMANN, 1835: 191.

Islamocantharis auroraensis KASANTSEV, 1989: 244, **syn.n.**

Material examined. Armenia: Kafan, 28.vi.1982, M. Danilevsky, 2 ex. (NHMB, VSPC); Ordubad, Vesely, 1 ex. (VSPC).

Iran: Sheyk Mahalleh, 28.vi.-3.vii.1977, Exped. Nat. Mus. Praha, 1 ex. (NMPC); Mazandaran, 30 km SW Chalus, Kelardasht, 1.vi.1978, C. Holzschuh, 1 ex. (NHMB).

Coloration variability. Head entirely honey yellow or with large black spot between and behind eyes or yellow coloration is restricted to area in front of eyes including mouthparts. Meso- and metasternum including scutellum rusty to black in female, black in male.

Remarks. Basal tooth of claws as in *I. orientalis* (cf. WITTMER & MAGIS, 1978), aedeagus - Fig. 50.

The coloration of female including other characters agrees very well with Faldermann's original description and it is the only *Cantharis*-like species, which can be subjoined to this. In the catalogue by DELKESKAMP (1977), *C. cyanipennis* is classified as a variety of *Ancistronycha violacea* (Payk), but this species does not occur in Transcaucasia. The aedeagus is the same like in *I. diffusa* Wittmer & Magis, but it differs from it by stronger and shorter basal tooth of claws. From *I. orientalis* it differs by shorter paramere (cf. WITTMER & MAGIS, 1978).

Distribution. Armenia, S Azerbaijan, NW Iran.

***Islamocantharis* subgenus *Unicantharis* subgen.n.**

Type species: *Cantharis cilicia* Pic, 1904. **Name derivation.** *Unicantharis*, gender feminine, derived from Latin *unus* - one and *Cantharis*, refers to only outer claw dentate.

Diagnosis. The new subgenus differs from the nominotypical one by the form of claws, where only outer claw of all tarsi in both sexes is dentate. The characteristic forms both of the pronotum and of the aedeagus are the same like in *Islamocantharis* s.str.

Islamocantharis (Unicantharis) cilicia (Pic, 1904) comb.n.

Cantharis (Telephorus) inpectoralis Pic, 1908: 73, **syn.n. Holotype**, ♀, "Hadjin Dagh (Taurus)" (MNHN).

Additional material examined. Turkey: Prov. Ankara, Kizilcahaman, 2.vi.1986, Kadlec et Voříšek, 1 ex.; Toros Daglari, Pozanti, 3.-6.vi.1983, O. Brodský, J. Kratochvíl et S. Bílý, 4 ex.; Prov. Tunceli, Munzur-Vadini Nat. Park, 1000-1400 m, Barries et Cate, 1 ex. (all VSPC).

Coloration variability. Colour of elytra vary from honey yellow with black tip or black coloration passing to honey yellow basally to extreme forms (*C. inpectoralis*), where only base and narrow outer margin of each elytron remain yellow.

Aedeagus see WITTMER (1971b), tooth of outer claw similar to that of *I. diffusa* (cf. WITTMER & MAGIS, 1978).

Distribution. Turkey.

***Cordicantharis* gen.n.**

Type species: *Cantharis cordicollis* Küster, 1854. **Name derivation.** *Cordicantharis*, gender feminine, derived from Latin *cors (-dis)* - heart and *Cantharis*, similar genus, refers to the form of the pronotum.

Diagnosis. The new genus is by its habitus and by the form of tarsal claws very similar to the genus *Cantharis* L., from which it differs by the dorsal position of the laterophyses and their fusion and by the cordiform shape of pronotum, which is unusual and rare in the *Cantharis* species. The mentioned characters of laterophyses indicate the probable relationship with the genus *Podistra* Motsch. All the distinguishing characters of the species of this genus are mentioned in the proposed key.

Description. Habitus *Cantharis*-like. Mandibles simple, antennomeres of male with longitudinal, semi-lustrous sensorial impressions. Outer claws of all tarsi in male with rounded basal projections, claws of female simple. Pronotum more or less cordiform, lateral margins of it always more or less sinuate in front of posterior angles. Aedeagus narrowing apically, parameres more or less flattened, situated almost upright to transverse axis of aedeagus. Laterophyses situated dorsally of phallus, longitudinally fused, only their apices shallowly emarginate or incised.

Cantharis longicollis (Kiesenwetter, 1859) comb.n.

Figs 51-54

Telephorus longicollis KIESENWETTER, 1859: 24.

Examined material. Austria, Slovakia, Ukraine, Bulgaria, Macedonia, Greece and Turkey.

Remarks. *C. longicollis* differs by the form of the pronotum (Figs 51-52) and by the narrower parameres (Figs 53-54) from all the other known species of the genus.

Distribution. N Italy, Austria, Slovakia, W Ukraine, Hungary, Romania, Croatia, Bosnia, Yugoslavia, Macedonia, Albania, Greece, W Turkey.



Figs 48-61: 48-49: *Boveycantharis holzschuhi* sp.n.: 48, aedeagus, ventral view. 49, aedeagus, lateral view. 50, *Islamocantharis cyanipennis* (Faldermann), aedeagus, ventral view. 51-54: *Cordicantharis longicollis* (Kiesenwetter): 51, pronotum of male. 52, pronotum of female. 53, aedeagus, ventral view. 54, aedeagus, lateral view. 55-57: *C. cordicollis* (Küster): 55, apices of laterophyses, caudal view. 56, aedeagus, ventral view. 57, aedeagus and variability of paramere, lateral view. 58-59: *C. caspica* (Reitter): 58, aedeagus, lateral view. 59, apical portion of dorsal part of aedeagus, ventral view. 60-61: apices of laterophyses, caudal view: 60, *C. caspica* (Reitter). 61, *C. talyschensis* (Pic). Scale a - Figs 51-52, b - 48-50, 53-54, 56-59, c - 55, 60-61.

***Cordicantharis cordicollis* (Küster, 1854) comb.n.**

Figs 55-57, 62, 76

Cantharis cordicollis KÜSTER, 1854: 61.**Examined material.** Turkey (Prov. Artvin), S Russia, Georgia, Armenia and Azerbaijan.

Remarks. *C. cordicollis* and following species have very similar form of the aedeagus, distinctly different from that of *C. longicollis*. Aedeagi of particular species very slightly differ each other and they are also somewhat variable, so that combinations of some other characters must be used for distinguishing of the species. Form of the pronotum is also very similar in all the species of this group and mostly it is variable as shown in Figs 80-83.

Distribution. S Russia (Caucasus Mts.), N Turkey, Georgia, Armenia, Azerbaijan (including Talysh Mts.).

***Cordicantharis caspica* (Reitter, 1898) comb.n.**

Figs 58-60, 63, 68, 77

Cantharis caspica REITTER, 1898: 122. Syntypes: "Alburs, Rost", ♂ (HNHM), designated here as **lectotype**; the same data, ♂; "Persia, Alburs, Rost" 2♂ (all MNHN), designated as **paralectotypes**.

Additional material examined. Iran: Assalem, 20.v.1965, Mission Franco-iranienne, 5 ex; Assalem, 1300 m, 10.v.1970, Wittmer et Bothmer, 8 ex.; Bogrov Mts., 1700 m, 23.v.1974, C. Blumenthal, 5 ex.; C Elborz, Kelardasht, 1700 m, 22.v.1974, C. Blumenthal, 1 ex. (all NHMB).

Distribution. NW Iran: Bogrov. Mts., Elborz.

***Cordicantharis talyschensis* (Pic, 1900)**

Figs 61, 69

Cantharis talyschensis PIC, 1900: 182. Syntypes: "Talysh, Rost", ♂, here designated as **lectotype**; the same data, ♂♀; "Caucase, Talysh, C. Rost", ♂, designated here as **paralectotypes** (all MNHN).

Additional material examined. Azerbaijan: Talysh, 5 ex. (NHMB); Talysh, 13.-17.v.1992, 1 ex. (VSPC).

Remarks. Closely related to the preceding species, from which it differs by relatively small characters, given in the key. Transitional specimens can be found in the future, but the specific status of the two forms is conserved by now.

Distribution. SE Azerbaijan: Talysh Mts.

***Cordicantharis iliaca* (Marseul, 1864) comb.n.**

Figs 64,67,70,74,78,80-83, map 1

Telephorus iliacus MARSEUL, 1864: 41.

Cantharis pontica PIC, 1904a: 9, **syn.n.** Syntypes (MNHN): "Alpes Ponticae", 2♀, one of them is here designated as **lectotype** the other as **paralectotype**.

Cantharis iliaca var. *chehirensis* PIC, 1918: 22, **syn.n.** Syntypes (MNHN): "Anatolien, Ak-chehir, 1900, Korb", 3♀, one of them is here designated as **lectotype**, the others as **paralectotypes**.

Additional material examined. Turkey: Prov. Izmir: 3 km N Boz Dag, 38 22N 27 58E, 22.v.1981, Ressler, Rausch et Aspöck, 2 ex.; Boz Dag nr. Ödemis, 800 m, 13.iv.1978, C. Holzschuh lgt., 1 ex.; Prov. Kütahya, 44 km NE Domanie, 900 m, 39 53N 29 36E, 22.v.1985, Rausch et Ressler, 1 ex.; Denizli - Honaz Dag, 450-1200 m, 29.iv.1969, W. Wittmer, 2 ex.; Elma Dag, 2 ex.; Sandya, Bodemeyer, 2 ex.; Gök Dag, Bodemeyer, 1 ex. (all NHMB); Bursa, 26.iv.1938, 3 ex. (NHMB, MNHN); Amasya, 2 ex.; Konya, Escherich, 1 ex. (all MNHN); Aksehir, 1900, Korb, 5 ex. (NHMB, MNHN); Kizilcahaman, 24.-26.v.1969, C. Holzschuh, 2 ex. (NHMB); Prov. Bolu, Abant Gölü, 1200 m, 4.vi.1996, V. Švihla, 2 ex. (VSPC); Prov. Giresun, Egribel gec., 23.v.1989, A. Riedel, 1 ex. (SMNS); Prov. Trabzon: Zigana gec., 16.vi.1996, M. Snížek et Z. Švec, 4 ex.; Macka env., 27.-30.vi.1997, P. Průdek et M. Rlíha, 1 ex.; 50 km S Macka, Hamsiköy, 1850 m, 19.v.1997, V. Kozel, 1 ex.; Kirik, Ispir env. 17.vi.1994, V. Skoupý, 1 ex. (all VSPC); Yol Üstü nr. Rize, 15.v.1967, W. Wittmer, 1 ex. (NHMB).

Coloration variability. Head black, mandibles and sometimes basal half of last segment of maxillary palpus in male terra-cotta, in female head terra-cotta in front of eyes. Antennae black, or first two antennomeres in different degree terra-cotta. Pronotum egg-yolk yellow with mediolongitudinal black stripe in male, in female pronotum is entirely

egg-yolk yellow to orange or with pair of small black spots in posterior half. Elytra entirely honey yellow to orange or with narrow black apices combined with more or less narrow black suture, lateral margins and humeral portion. Dark coloration of elytra seems to enlarge northwards and especially eastwards.

Remarks. The two newly established synonyms are only aberrations, fitting in the coloration variability of this species.

Distribution. W and N Turkey (cf. Map 1).

***Cordicantharis acutangula* (Fairmaire, 1884) comb.n., sp.rediv.**

Figs 71,73,75, Map 1

Telephorus acutangulus FAIRMAIRE, 1884: 169.

Cantharis amanicola PIC, 1903c: 169, **syn.n.**

Material examined. Turkey, Akbez, 1891, 2 ex.; 1895, 1 ex.; 1898, 1 ex., all Delagrange (MNHN).

Remarks. By its habitus and coloration it does not differ from moderately darkened forms of *C. iliaca*, but it differs by aedeagal characters mentioned in the key. Females cannot be distinguished from those of *C. iliaca*.

Type material of both species was not found. *C. acutangula* was described from Akbez (now Turkey, not Syria), *C. amanicola* from Amanus Mts., on foot of whose is Akbez situated. Original description of *C. amanicola* significantly differs neither from that of *C. acutangula* nor from the material examined.

Distribution. S Turkey: Amanus Mts.

***Cordicantharis similis* sp.n.**

Figs 65, 72, 79. Map 1

Holotype, ♂, "Turc. c., Karliova, 11.vi.1996, Z. Švec lgt." (VSPC); "O. Türki, 50 km ö. Tatvan, 21.v.1977, D. Bernhauer lgt.", 13♂ (NHMB, VSPC).

Description. Head black, in front of eyes including mouthparts terra-cotta to chestnut brown or entirely black with only mouthparts brown. Antenna black, under side of antennomere 1 terra-cotta or antennae terra-cotta, 2-11 gradually darkening to black. Pronotum honey yellow with median spot, form of which vary from reduced one, situated in posterior portion of pronotum only to stripe, reaching from posterior margin of pronotum up to anterior one, where it can be enlarged laterally. Femora black, tarsi sienna to sepia, at least anterior tibiae and mostly all ones more or less honey yellow. Elytra honey yellow, apical 1/5 to 1/3 of them black. Ventral part of body black, abdomen yellow bordered, last two abdominal segments entirely yellow.

♂. Eyes relatively small and less prominent, head across eyes slightly narrower than pronotum, head behind eyes roundly narrowing posteriorly (Fig. 79). Antenna only very slightly exceeding over elytral midlength (Fig. 65). Surface of head finely imbricate-punctate and brown pubescent, matt. Pronotum slightly wider than long, more or less cordiform, its shape vary in the same way like in *C. iliaca*. Surface of pronotum sparsely punctate and yellow pubescent, semi-lustrous, black coloured portion of posterior half lustrous. Elytra parallel-sided, their surface rugulose, yellow and brown (black portion) pubescent, semi-lustrous. Form of dorsal part of aedeagus and of parameres including variability the same like in *C. iliaca*. Laterophyses narrower apically (Fig. 72). Length: 9.5 - 11.0 mm.

♀. Unknown.

Remarks. The new species is closely related to *C. iliaca*, from which it differs by more extent black coloration of the elytra, by semi-lustrous to lustrous pronotum, by narrower apices of laterophyses and, especially, by shorter antennae and head roundly narrowed behind eyes.

Distribution. NE Turkey.

Name derivation. Latin similis = similar, referring to the similarity with *C. iliaca*.

***Cordicantharis bodemeyeri* (Bourgeois in Bodemeyer) comb.n.**

Map 1

Cantharis bodemeyeri BOURGEOIS in BODEMEYER, 1900: 152. Syntypes: "Asia minor, Bulghar-Dagh, v.Bodemeyer", ♂, here designated as **lectotype** (MNHN); the same data, ♀; "Asia minor, Burna, v.Bodemeyer", ♀, designated as **paralectotypes** (all DEIC).

Remarks. Form of the head and pronotum and length of the antenna as in *C. iliaca*. Dorsal part of the aedeagus and parameres as in *C. iliaca*, apices of laterophyses as in *C. similis* sp.n.

***Cordicantharis wittmeri* sp.n.**

Figs 66, 84

Holotype. ♂, "Hasrun Liban, 1500 m, 19.iv.1935, W. Wittmer lgt." (NHMB).

Description. Head between eyes and antennal pits black, in front of eyes egg-yolk yellow, tips of mandibles and maxillary palpi sienna. Antennae chestnut brown, antennomere 1 egg-yolk yellow. Prothorax yellow, pronotum with black spot in posterior 2/3 of its length (Fig. 84). Basal 2/3 of femora egg-yolk yellow, terminal third of them sepia to black, tibiae and tarsi chestnut brown. Elytra iron grey basally, lightening to sepia towards apex. Meso- and metasternum and abdomen black, abdominal segments yellow bordered.

♂. Form of head as in Fig. 79, head across eyes almost as wide as pronotum, length of antenna as figured. Surface of head imbricate-punctate, brown pubescent, matt. Pronotum very slightly wider than long, distinctly cordiform (Fig. 84), its surface sparsely punctate and yellow or brown pubescent, spot semi-lustrous, rest of pronotum matt. Elytra parallel-sided, rugulose, yellow pubescent, matt. Length ♂: 10.4 mm.

Aedeagus: dorsal part and paramere very similar to that of *C. acutangula* (Figs 71, 75), apices of laterophyses similar to that of *C. similis* (Fig. 72).

♀. Unknown.

Remarks. The new species is by its habitus most similar to *C. bodemeyeri*, from which it differs by coloration of antennae and legs and by apically tapered parameres.

Distribution. Lebanon.

Name derivation. Dedicated to its collector Walter Wittmer (†).

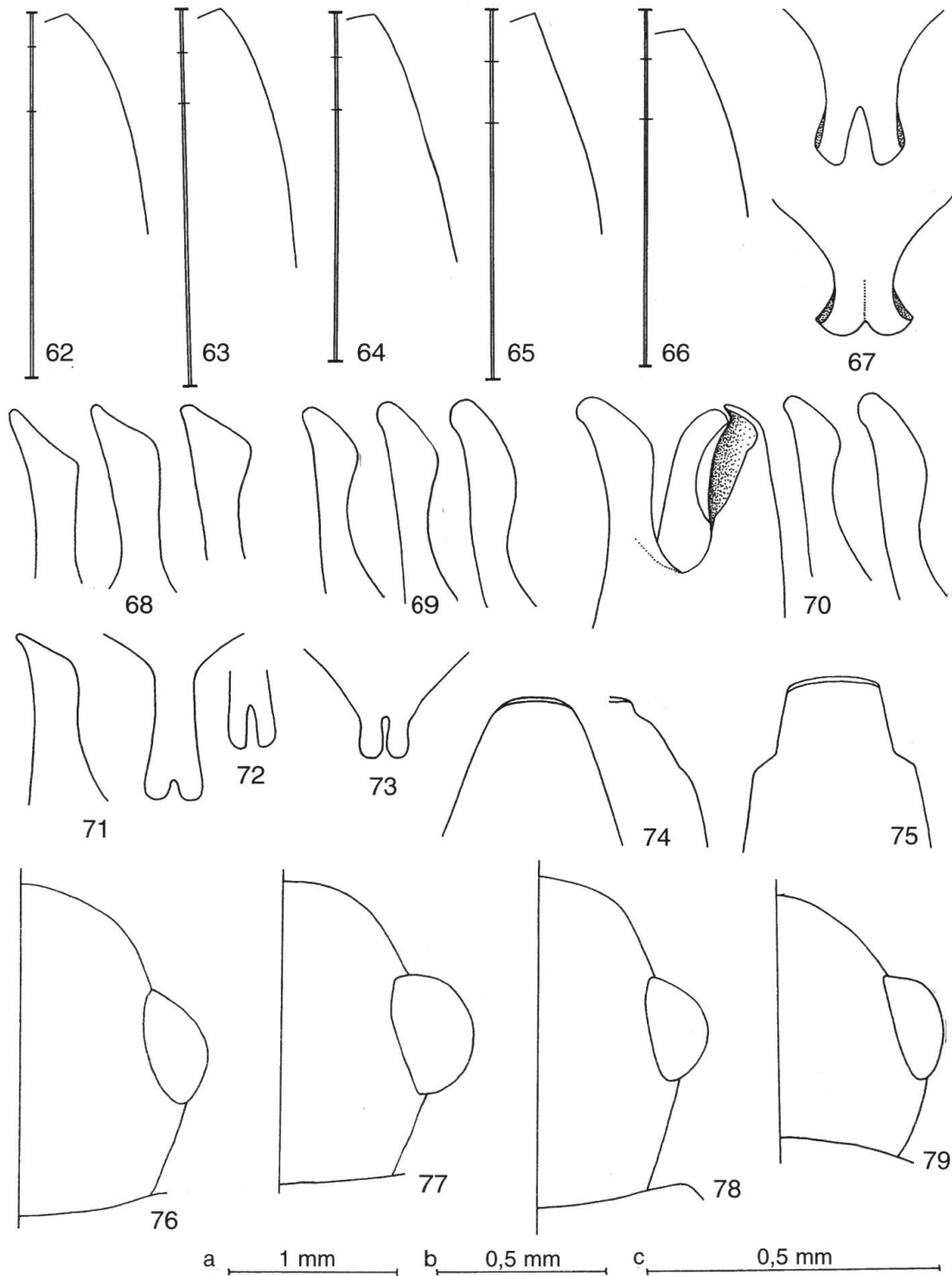
***Cordicantharis diabolica* (Reitter, 1895) comb.n.**

Map 1

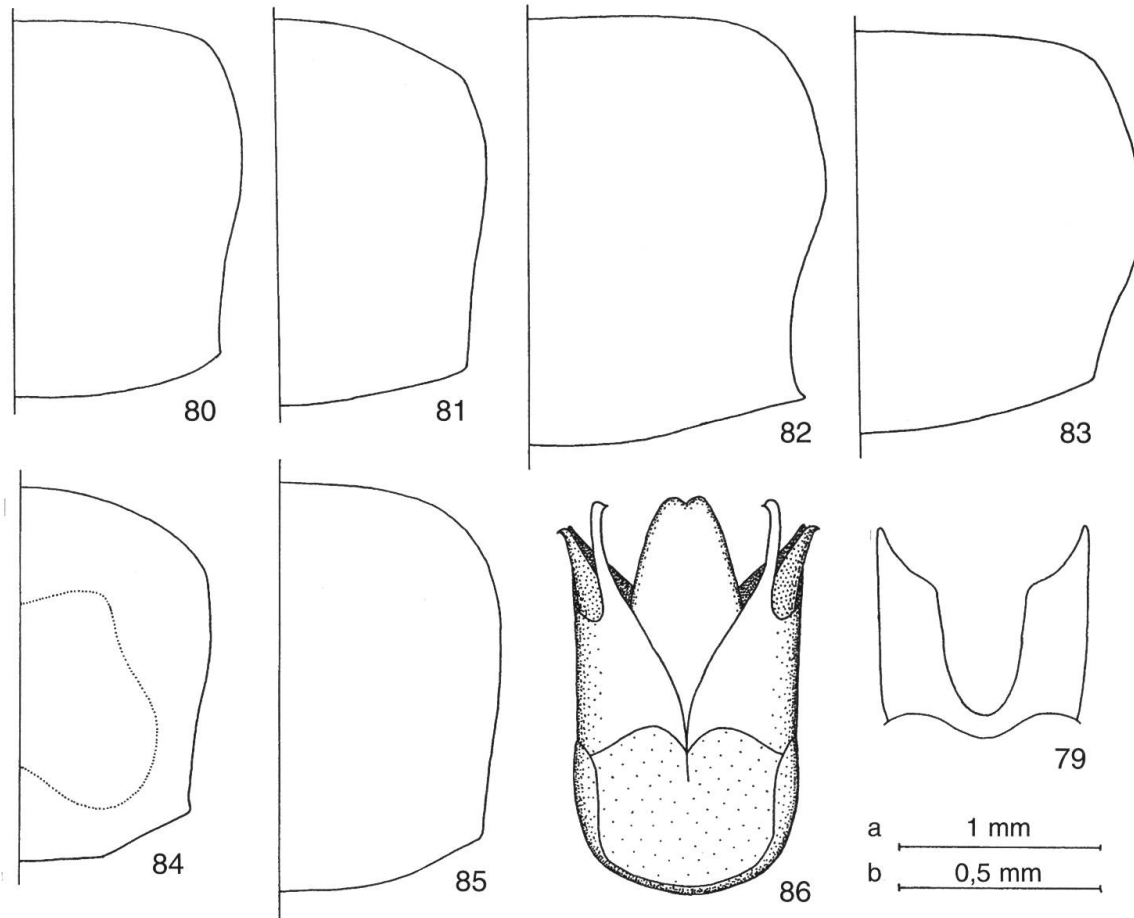
Cantharis diabolica REITTER, 1895: 82. **Holotype.** ♂, "Akbes" (MNHN). The specimen is strongly damaged, abdomen, all legs excluding anterior ones and antennomeres from 6 missing.

Remarks. Because the abdomen is missing, this species is classified in the genus *Cordicantharis* only according to the form of the pronotum.

Distribution. S Turkey: Amanus Mts.



Figs 62-79: 62-66: comparison of relative lengths of antenna and body: 62, *Cordicantharis cordicollis* (Küster). 63, *C. caspica* (Reitter). 64, *C. iliaca* (Marseul). 65, *C. similis* sp.n. 66, *C. wittmeri* sp.n. 67, *C. iliaca* (Marseul), variability of apices of laterophyses, caudal view. 68-69: variability of paramere, lateral view: 68, *C. caspica* (Reitter). 69, *C. talyschensis* (Pic). 70, *C. iliaca* (Marseul), aedeagus and variability of parameres, lateral view. 71, *C. acutangula* (Fairmaire), paramere, lateral view. 72-73: apices of laterophyses, caudal view: 72, *C. similis* sp.n., variability. 73, *C. acutangula* (Fairmaire). 74-75: dorsal part of aedeagus, ventral view: 74, *C. iliaca* (Marseul), variability. 75, *C. acutangula* (Fairmaire). 76-79: head, semischematically: 76, *C. cordicollis* (Küster). 77, *C. caspica* (Reitter). 78, *C. iliaca* (Marseul). 79, *C. similis* sp.n. Scale a - Figs 76-79, b - 68-71, 74-75, c - 67, 72-73.



Figs 80-87: 80-83: pronotum of *Cordicantharis iliaca* (Marseul): 80-81: variability in male. 82-83: variability in female. 84-85: pronotum: 84, *C. wittmeri* sp.n. 85, *C. diabolica* (Reitter). 86-87: *Occathemus tarsalis* (Mulsant): 86, aedeagus, ventral view. 87, dorsal part of aedeagus, dorsal view. Scale a - Figs 80-85, b - 86-87.

Key to the *Cordicantharis* species

- 1 Lateral sides of pronotum nearly parallel-sided, pronotum as long as wide (♀) or slightly longer than wide (♂) as in Figs 51-52, aedeagus - Figs 53-54*C. longicollis* (Kiesenwetter)
- Lateral sides of pronotum rounded, pronotum slightly wider than long in both sexes2
- 2 Elytra at least partly yellow3
- Elytra blue or black5
- 3 ♂: head behind eyes rounded (Fig. 79), antenna reaching elytral midlength (Fig. 65), apices of laterophyses - Fig. 72*C. similis* sp.n.
- ♂: head behind eyes almost straight (Fig. 78), antenna distinctly exceeding over elytral midlength (Fig. 67)4
- 4 ♂: apex of paramere rounded (Fig. 70), lateral margin of dorsal part of aedeagus at most slightly narrowed in front of its apex (Fig. 74), apices of laterophyses wider (Fig. 67)*C. iliaca* (Marseul)
- ♂: apex of paramere roundly tapered (Fig. 71), lateral margin of dorsal part of



Map 1: Distribution of some *Cordicantharis* species in Turkey. ● *C. iliaca* (Marseul), ▲ *C. similis* sp.n., ■ *C. acutangula* (Fairmaire), ◆ *C. bodemeyeri* (Bourgeois), ★ *C. diabolica* (Reitter).

- aedeagus distinctly narrowed in front of its apex (Fig. 75), apices of laterophyses narrower (Fig. 73)*C. acutangula* (Fairmaire)
- 5 Elytra blue, pronotum dark at most on its anterior margin6
- Elytra black, pronotum with black spot or mediolongitudinal stripe or entirely black8
- 6 Pronotum black on its anterior margin; ♂: eyes smaller, less prominent (Fig. 76), antenna only very slightly exceeding over elytral midlength (Fig. 62), transverse elevated lines on ventral side of dorsal part of aedeagus situated far from its apex (Fig. 56-57), parameres and apices of laterophyses - Figs 55, 57*C. cordicollis* (Küster)
- Pronotum entirely yellow to orange; ♂: eyes larger, more prominent (Fig. 77), antenna distinctly exceeding over elytral midlength (Fig. 63), transverse elevated lines on ventral side of dorsal part of aedeagus situated nearer to its apex (Fig. 58-59)7
- 7 Legs entirely dark; ♂: apex of paramere wider (Fig. 69), apices of laterophyses wider, more rounded (Fig. 61)*C. talyschensis* (Pic)
- Legs excluding apices of femora yellow; ♂: apex of paramere narrower (Fig. 68), apices of laterophyses narrower, more tapered (Fig. 60).....*C. caspica* (Reitter)
- 8 Pronotum entirely black, legs yellow*C. diabolica* (Reitter)
- Pronotum yellow with median spot or stripe on disc, legs partly or entirely black ..9
- 9 Legs black, anterior tibiae more or less brownish; ♂: head behind eyes almost straight as in Fig. 78, antenna slightly but distinctly exceeding over elytral midlength, lateral margin of dorsal part of aedeagus only slightly narrowed in front of its apex as in Fig. 74, apex of paramere wider as in Fig. 70, apices of laterophyses as in Fig. 72*C. bodemeyeri* (Bourgeois)

- Basal 2/3 of femora yellow; ♂: head behind eyes rounded as in Fig. 79, antenna hardly reaching elytral midlength as in Fig. 65, lateral margin of dorsal part of aedeagus strongly narrowed in front of apex as in Fig. 75, apex of paramere narrower as in Fig. 71, apices of laterophyses as in Fig. 72*C. wittmeri* sp.n.

Occathemus gen.n.

Type species: *Cantharis tarsalis* Mulsant in Reiche, 1862. **Name derivation.** *Occathemus*, gender masculine, combined from Latin *occidentalis* - western and *Athemus*.

Differential diagnosis. The new genus is according to the form of the aedeagus related to the genus *Athemus* Lew., from which it differs by the following characters: pronotum slightly widened anteriorly (narrowing in *Athemus*), all tarsal claws in both sexes simple (at least some claws in one or both sexes with basal projection in *Athemus*), dorsal part of aedeagus V-shaped (more or less rounded in *Athemus*) and paramere with inner apical tooth (not known in *Athemus*). See also WITTMER (1995).

Description. Form of body *Cantharis*-like. Mandibles simple, antennomeres without lustrous impressions. Last segment of maxillary palpus elongate, securiform. Eyes small, head behind eyes slightly and roundly narrowing posteriorly. Pronotum almost square, lateral margins slightly diverging anteriorly. All tarsal claws in both sexes simple.

Aedeagus is generally of *Athemus* type, dorsal part of it deeply incised, laterophyses developed - Figs 86-87.

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References

- BOURGOIS J. (1893): *Faune Gallo-Rhénane, Coléoptères, 4. Supplément aux Malacodermes*. Rev. Entomol. 11: 1-34.
- BOURGOIS, J. (1900): in BODEMEYER, E. von: *Quer durch Klein-Asien in den Bulghar-Dagh*. 169 pp. Die Druck un Verlags-Aktien-Gesellschaft Vormal's Dölter. Emmendingen.
- DELKESKAMP K. (1939): *Cantharidae*. In: Junk W. & Schenkling S. (Eds.): *Coleopterorum Catalogus, Pars 165*. 357 pp. W. Junk Verlag, s'Gravenhage.
- DELKESKAMP K. (1977): *Cantharidae*. In: Wilcox J.A. (Ed.): *Coleopterorum Catalogus Supplementa. Pars 165, Fasc. 1*. 431 pp. Dr. W. Junk by Publishers. Hague.
- FAIRMAIRE L.M. (1884): *Liste des Coléoptères recueillis par M. l'abbé David / Akbés (Asie-Mineure) et descriptions des espèces nouvelles*. Ann. Soc. Entomol. France 4: 165-180.
- FALDERMANN F. (1835): *Coleoptera Persico-Armeniaca*. Nouv. Mém. Soc. Imper. Nat. Moscou 4: 1-202.
- GEMMINGER M. (1870): *Miscellen*. Coleopt. Hefte 6: 119-124.
- HEYDEN L. von & WEISE J. (1883): *Neue Ost-europäische und Klein-asiatische Käfer*. Deutsche Entomol. Ztschr. 27: 310-314.
- HICKER R. (1955): *Neue paläarktische Arten aus der Familie Cantharidae*. Coleopt. Rdsch. 33: 55-60.
- HOLDHAUS K. (1910): *Koleopteren aus Mesopotamien*. Ann. Nathist. Hofmus. Wien. 33: 49-58.
- KASANTSEV S. (1989): *To the knowledge of Palaearctic Cantharidae (Coleoptera). On the genera Bactrocantharis Barovsky, Ancistronycha Märkel and Islamocantharis Wittmer & Magis of the USSR*. Entomol. Basiliensia 13: 239-245.
- KASZAB Z. (1955): *Neue und wenig bekannte Malacodermata aus dem Karpatenbecken*. Acta Zool. Acad. Sci. Hung. 1: 289-307.

- KIESENWETTER H. von (1859): *Beitrag zur Käferfauna Griechenlands*. Berliner Entomol. Ztschr. 3: 17-34.
- KOLENATI F.A. (1846): *Meletemata Entomologica V*. 170 pp. Typ. Acad. Petropoli.
- KÜSTER H.C. (1854): *Die Käfer Europa's*. 100 pp. Verlag von Bauer und Raspe. Nürnberg.
- LATREILLE P.A. (1810): *Considérations générales sur l'ordre naturel des animaux*. 444 pp. Paris.
- LETZNER K. (1846): *Cantharis sudetica nov. spec.* Arbeit Schles. Ges. Vatel. Kultur, 1846: 75.
- MAGIS N. (1972): *Contribution à l'étude monographique du genre Cantharis Linné, 1758. (Coleoptera: Cantharidae). II. Caracteres morphologiques et morphométriques des especes apparentes à Cantharis fusca Linné*. Bull. Ann. Soc. R. Belg. Entomol. 108: 186-223.
- MARSEUL S.A. de (1864): *Téléphorides. Tribu de la famille de Malacodermes*. L'Abeille 1: 1-108.
- MÉNÉTRIÉS E. (1836): *Insectes nouveaux de la Turquie*. Bull. Acad. St.Petersburg 1: 149-151.
- MOSCARDINI C. (1965): *Osservazione sulle Cantharis nigricans Müll., alpestris Fiori e sulle specie affini (Coleoptera Cantharidae)*. Boll. Soc. Entomol. Ital. 95: 112-123.
- MOTSCHULSKY V. de (1859): *Coléoptères nouveaux de la Californie*. Bull. Soc. Imp. Nat. Moscou 32: 357-410.
- PACLT J. (1958): *Farbenbestimmung in der Biologie*. 76 pp. VEB G. Fischer Verlag. Jena.
- PIC M. (1900): *Coléoptères nouveaux de la faune paléarctique*. Bull. Soc. Zool. France 1900: 182-185.
- PIC M. (1901): *Notes diverses et diagnoses*. L'Échange 17: 25-27.
- PIC M. (1902a): *Diagnoses de Coléoptères de l'Ancien et du Nouveau monde*. L'Échange 18: 23-26.
- PIC M. (1902b): *Descriptions et notes diverses (3. article)*. L'Échange 18: 47-49.
- PIC M. (1903a): *Deux captures intéressantes. Diagnoses de divers Coléoptères*. L'Échange 19: 145-147.
- PIC M. (1903b): *Nouveaux Coléoptères d'Europe*. L'Échange 19: 115.
- PIC M. (1903c): *Espèces et variétés nouvelles de Coléoptères*. L'Échange 19: 169-171.
- PIC M. (1904a): *Notes et Descriptions*. L'Échange 20: 9-11.
- PIC M. (1904b): *A propos de quelques femelles brachyptères du genre Cantharis L. (Col.)*. Bull. Soc. Entomol. France 1904: 71.
- PIC M. (1905a): *Notes Entomologiques et Descriptions*. L'Échange 21: 185-187.
- PIC M. (1905b): *Coléoptères nouveaux provenant de France, Grèce, Algérie et Turquie d'Asie*. L'Échange 21: 161-163.
- PIC M. (1906a): *Noms nouveaux et diagnoses de "Cantharini" (Telephorides) européens et exotiques*. L'Échange 22: 81-85, 89-92.
- PIC M. (1906b): *Notes entomologiques diverses*. L'Échange 22: 96.
- PIC M. (1908): *Descriptions ou diagnoses et notes diverses*. L'Échange 24: 73-75.
- PIC M. (1909): *Descriptions ou diagnoses et notes diverses*. L'Échange 25: 169-171.
- PIC M. (1910): *Descriptions ou diagnoses et notes diverses*. L'Échange 26: 49-51.
- PIC M. (1913): *Notes diverses, descriptions et diagnoses*. L'Échange 29: 185-187.
- PIC M. (1914): *Notes sur les Cantharidae paléarctiques et diagnoses de formes nouvelles*. L'Échange 30: 51-53.
- PIC M. (1915): *Notes diverses, descriptions et diagnoses*. L'Échange 31: 21-22, 29-30.
- PIC M. (1932): *Notes diverses, nouveautés*. L'Échange 48: 17-18.
- PIC M. (1937): *Notes diverses, nouveautés*. L'Échange 53: 9-10.
- PIC M. (1947): *Coléoptères du globe*. L'Échange 63: 1-16.
- REITTER E. (1895): *Beschreibung neuer oder wenig gekannter Coleopteren aus der Umgebung von Akbes in Syrien*. Wiener Entomol. Z. 14: 79-88.
- REITTER E. (1898): *Siebzehnter Beitrag zur Coleopteren-Fauna des russisches Reiches*. Wiener Entomol. Z. 17: 109-127.
- ŠVIHLA V. (1983): *New species of the family Cantharidae (Coleoptera) from the west Palaearct.* Annot. Zool. Bot. (Bratislava) 156: 1-10.
- ŠVIHLA V. (1992): *Revision of the Subfam. Cantharinae without Podabrus (Coleoptera, Cantharidae) from Soviet Central Asia, Afghanistan and Chinese Turkestan*. Entomol. Basiliensia 15: 279-332.
- WITTMER W. (1969): *Zur Kenntnis der Gattung Metacantharis Bourg. 43. Beitrag zur Kenntnis der palaearktischen Cantharidae (Coleoptera)*. Verhandl. Naturf. Ges. Basel 80: 70-93.
- WITTMER W. (1971a): *Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei. 257. Cantharidae der V. und IV. Expedition (Coleoptera)*. Ann. Hist. Natur. Mus. Nat. Hungarici 63: 189-203.
- WITTMER W. (1971b): *Zur Kenntnis der Gattung Cantharis (Col. Cantharidae)*. Entomol. Arb. Mus. Frey 22: 226-239.
- WITTMER W. (1979): *64. Beitrag zur Kenntnis der palaearktischen Cantharidae, Phengodidae und Malachiidae (Col.)*. Entomol. Basiliensia 4: 327-346.
- WITTMER W. (1984): *72. Beitrag zur Kenntnis der palaearktischen Fauna (Coleoptera: Fam. Cantharidae und Malachiidae)*.
- WITTMER W. (1986): *76. Beitrag zur Kenntnis der palaearktischen Fauna*. Entomol. Ges. Basel 36: 100-122.
- WITTMER W. (1995): *Zur Kenntnis der Gattung Athemus Lewis (Col. Cantharidae)*. Entomol. Basiliensia 18: 171-286.

- WITTMER W. (1997): *Neue Cantharidae (Col.) aus dem indo-malaiischen und palaearktischen Faunengebiet mit Mutationen. 2. Beitrag.* Entomol. Basiliensia 20: 223-366.
- WITTMER W. & KASANTSEV S. (1997): *On the Classification of the genus Cantharis Linné (Coleoptera, Cantharidae).* Entomol. Basiliensia 20: 367-372. V. Švihla
- WITTMER W. & MAGIS N. (1978): *Zur Kenntnis einiger mit Cantharis L. verwandter Gattungen (Coleoptera, Cantharidae).* Bull. Ann. Soc. Roy. Belg. Entomol. 114: 133-139.

Author's address:

Vladimír Švihla
Department of Entomology
National Museum
Golčova 1
CZ-148 00 PRAHA 4 - Kunratice
Czech Republic