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Distribution of the genus *Choleva* (Coleoptera: Leiodidae: Cholevinae) in Turkey with description of three new species from Turkey and Syria

Rozšíření rodu *Choleva* (Coleoptera: Leiodidae: Cholevinae) v Turecku s popisem tří nových druhů z Turecka a Sýrie

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Faunistics, taxonomy, Coleoptera, Leiodidae, Cholevinae, *Choleva*, new species, keys, distributional maps, Turkey, Syria

Abstract. The geographic distribution of the genus *Choleva* Latreille, 1796 in Turkey is studied. Three new species are described: *Choleva* (*Choleva*) *mertliki* sp. n. (southern Turkey, northwestern Syria), *C.* (*C.*) *kostali* sp. n. (southern Turkey) and *C.* (*C.*) *safranboluensis* sp. n. (northern Turkey). Additional faunistic records of further species are given. The first record of *Choleva* (*Choleva*) *reitteri* Petri, 1915 and the first reliable record of *C.* (*C.*) *cisteloides* (Frölich, 1799) from Turkey are presented. A list of all eighteen species presently known from the area is given. All available data on the distribution of *Choleva* in Turkey are reviewed and mapped.

INTRODUCTION

The distribution of the genus *Choleva* Latreille, 1796 is limited to the Palaearctic region, in which less than 60 species are presently known. The records of the genus from Turkey are scattered in literature. Jeannel (1923, 1936) recorded only 4 and 6 species, respectively, and the latter number was given also by Coiffait (1959). Additional records were published by Szymczakowski (1962, 1965b, 1970), Giachino (1990) and Růžička (1993). Several species of *Choleva* are mentioned from Turkey also in the papers by Jacobson (1910), Szymczakowski (1959, 1961, 1965a), Henrot (1967), Burakowski, Mroczkowski & Stefańska (1978) and Schilthuizen (1990), but these records either contain no exact localities or cite older records.

The present paper contains the descriptions of three new species and all available data on the distribution of *Choleva* in Turkey is given. All distributional data from the present paper as well as from the papers by Reitter (1896), Jeannel (1923, 1936), Coiffait (1959), Szymczakowski (1962, 1965b, 1970), Giachino (1990) and Růžička (1993) are mapped (Figs 54-57). The first record of *Choleva* (*Choleva*) *reitteri* Petri, 1915 and the first reliable record of *C.* (*C.*) *cisteloides* (Frölich, 1799) from Turkey are presented. Altogether, eighteen species of the genus *Choleva* are given from Turkey, however the occurrence of one of them is doubtful (Tab. 1).

ABBREVIATIONS AND EXPLANATORY NOTES

The terminology concerning the shape of the basal margin of the female ventrite VIII (= spiculum ventrale) follows Perreau (1989).

The examined material is deposited in the following private and institutional collections (the codens follow Arnett, Samuelson & Nishida 1993):

AWEC - coll. Andreas Weigel, Pößneck, Germany
BIJH - Biološki Inštitut Jovana Hadžija ZRC SAZU, Ljubljana, Slovenia
JMEC - coll. Josef Mertlik, Hradec Králové, Czech Republic
JNEC - coll. Jiří Nežerka, Třinec, Czech Republic
JROC - coll. Jakub Rolčík, Praha, Czech Republic
JRUC - coll. Jan Růžička, Praha, Czech Republic
JVAC - author's collection
LKLC - coll. Libor Klíma, Ostrava, Czech Republic
MHNG - Muséum d'histoire naturelle, Genève, Switzerland
MKUC - coll. Milan Kuboň, Ostrava, Czech Republic
MNHN - Muséum national d'Histoire naturelle, Paris, France
MPEC - coll. Michel Perreau, Paris, France
NHMW - Naturhistorisches Museum, Wien, Austria
NMPC - Národní muzeum, Praha, Czech Republic
OMOC - Ostravské muzeum, Ostrava, Czech Republic
PGIC - coll. Pier Mauro Giachino, Torino, Italy
SZOC - coll. Stefano Zoia, Milano, Italy
TMBC - Természettudományi Múzeum, Budapest, Hungary
TSIC - coll. Tomáš Sitek, Ostrava, Czech Republic
VKUC - coll. Vladimír Kubík, Chlumec nad Cidlinou, Czech Republic
ZMAC - coll. Zdeněk Malinka, Opava, Czech Republic

Type specimens are labelled with red labels with following text: "HOLOTYPUS, ALLOTYPUS or PARATYPUS, [Name of a taxon] sp. n., ♂ or ♀, J. Vávra det., 1996 or 1998". All material studied was identified or reviewed by the author.

Female genitalia and abdominal segments were mounted in selected specimens in DMHF (Dimethyl Hydantoin Formaldehyde) resin (water soluble medium) and indicated [GD] in the text.

Following abbreviations are used throughout the text: env. – environs, MS - manuscript, prov. - province.

SYSTEMATIC PART

Choleva* (*Cholevopsis*) *major turcica Coiffait, 1959

Material examined. Turkey: Pisidischer Taurus Mts., Anamas Mts., Weirather [leg.], 2 ♂♂, 2 ♀♀ (NMPC: coll. Hlisnikowski); Pisid. Taurus, Anamas, 1 ♀ (JNEC); Isparta, Anamas: Zindan Mağarası [cave], 11.viii.1967, V. Sbordoni & M. Brignoli leg., 4 ♀♀ (JVAC); Anamas env., "Sindan - Höhle" [= Zindan Mağarası cave], 30.vii.1971, 1 ♂, 4 ♀♀ (BIJH, JVAC); Isparta, Anamas, 1.200 m, Zindan Mağarası [cave], 17.iv.1973, V. Sbordoni leg., 2 ♂♂, 1 ♀ (JRUC, JVAC); Çamliyayla env., Sebil, 24.-26.v.1995, J. Mička leg., 1 ♂ (JRUC); Erdemli, Aslanli [= Arslanli], 27.v.1998, sweept in cultivated fields in the evening, M. Snížek leg., 1 ♀ [GD] (JVAC).

The nominotypical subspecies is known from Syria, Israel and Lebanon (Coiffait 1955). The subspecies *C. major turcica* was described by Coiffait (1959) from the caves in southern and southwestern Turkey and Lebanon. Further records from Turkey were given by Giachino (1990), one of them from the locality "Belen, Issuspass, Amanus" refers to the town Belen at southern foot of the mountains Amanos Dağları, now Nur Dağları. Distribution: see Fig. 55.

Choleva* (*Choleva*) *anatina Szymczakowski, 1962

The species was described by Szymczakowski (1965b) from "Stambul, Zongouldeck?". According to Giachino (1990) this data may refer to Zonguldak in northern Turkey. This conclusion is accepted here and the locality is marked with "?" in the map (Fig. 55).

Choleva* (*Choleva*) *dorsigera (Marseul, 1864)

Material examined. Turkey: Antakya env., 23.iv.1992, M. Dvořák leg., in ant nest of *Messor* sp., under stone, 2 ♀♀ [GD] (JRUC, JVAC); Urfa [= Şanli Urfa], 15 km south of Hilvan, 750-800 m, 5.v.1993, M. Zapparoli [leg.], 1 ♂ (SZOC).

Myrmecophilous species, occuring in southern Europe and Asia Minor. Known from Greece, Cyprus, Syria, Israel (Jeannel 1936) and Lebanon (Coiffait 1959). From Turkey known only from Smyrna [= İzmir] (Jeannel 1936). Distribution: see Fig. 55.

Choleva* (*Choleva*) *agilis (Illiger, 1798)

Reitter (1896) described *Choleva adusta* from Turkey ("Amasia") after a single female; the species was later synonymized with *C. agilis* by Jeannel (1923). Due to the considerable similarity of *C. agilis* and the recently described *Choleva* (*Choleva*) *cavazzutii* Giachino, 1990, is *C. agilis* listed (Tab. 1) and mapped (Fig. 56) with "?".

Choleva* (*Choleva*) *bedeli Jeannel, 1923

Material examined. Turkey: Uluçinar, 11.-12.iv.1992, O. Hovorka leg., 1 ♂ (JRUC); Alanya, 15 km W of Turkler, Kargı Dağ Mt., 5.iv.1996, A. Weigel leg., 2 ♂♂ (AWEC).

Known from Cyprus, Turkey (Jeannel 1936, Henrot 1964) and Crete: Omalos (JVAC). From Turkey previously recorded only from two localities at the western coast (Jeannel 1936). Distribution: see Fig. 56.

Choleva* (*Choleva*) *cavazzutii Giachino, 1990 (Figs 41-45)

Material examined. Turkey: 10 km N of Isparta, 1.000 m, 6.v.[19]75, Besuchet & Löbl [leg.], 1 ♂, 1 ♀ (MHNG, paratypes); Eskipol, between İspir and Erzurum, 24.vi.1986, T. Deuve, M. Perreau et S. Sade leg., 1 ♂ (MPEC); Nevşehir env., Göreme, 23.vi.1993, M. Kuboň leg., 1 ♂ (JVAC); Van Gölü env., Muradiye-Şelâlesi, 27.vi.1993, M. Kuboň leg., 2 ♂♂, 1 ♀ [GD] (JVAC, MKUC); ditto, L. Klíma leg., 3 ♂♂, 3 ♀♀ (JRUC, JVAC, LKLC), specimens from Muradiye-Şelâlesi were washed out of a sandy loam of the bank of a creek under a rock; Gevaş env., Çadir Dağı Mt., 2.000-2.600 m, 29.vi.1993, M. Kuboň leg., 4 ♂♂, 4 ♀♀ [2 ♀♀ GD] (JVAC, MKUC); ditto, L. Klíma leg., 1 ♀ (JRUC), specimens from the environs of Gevaş were collected in the remnants of decaying vegetation under stones near a snow field; Bolu env., Abant Gölü, 22.vi.-8.vii.1993, O. Hovorka leg., 1 ♀ [GD] (JRUC); İçel env., Göktepe Dağı Mts., Güzeloluk, 1.500 m, 21.-23.v.1995, J. Mertlik leg., 1 ♂ flying near a spring at dusk (JVAC).

This recently described species of the "*agilis*" group from northern and southwestern Turkey is very similar to *C. agilis*, from which it should differ, among other characters, by the shape of the apical portion of aedeagus (dorsal view) and by the shape of the tooth on metatrochanter (according to Giachino 1990). However, the specimens from Muradiye-Şelâlesi differ from the description in the following characters: the apical portion of aedea-

gus more elongate (Fig. 41); tooth of metatrochanter larger (Fig. 43). In female the tergum X is only little narrowed towards the base, subquadrangular (Fig. 44). For the shape of spiculum ventrale (female) and the lateral view of aedeagus (male) see Figs 45 and 42 respectively; the dissected male was compared with a paratype from Isparta (MHNG). Distribution: see Fig. 56.

Choleva* (*Choleva*) *emgei Reitter, 1884

Known from Dalmatia, Albania, Greece and Crete (Jeannel 1936, Szymczakowski 1965a) and also from southern Austria (?) (Jeannel 1936). From Turkey given by Jacobson (1910) without detailed data.

Choleva* (*Choleva*) *oblonga oblonga Latreille, 1807

Material examined. Turkey: "Olymp Bithyn." [= Uludağ Mt., Bursa env.], vii.[1]929, Jureček [leg.], 1 ♂ (NMPC).

From Turkey given by Jeannel (1936) only from "Lydie: mont Tomolos", referring to Tmolos Dağı, now Boz Dağ Mts. Distribution: see Fig. 57.

Choleva* (*Choleva*) *nivalis (Kraatz, 1856)

The species was given from "l'Asie mineure" by Szymczakowski (1959) and his record was repeated by Szymczakowski (1961) and Burakowski, Mroczkowski & Stefańska (1978). It is not mapped here because of the lack of more detailed data.

Choleva* (*Choleva*) *reitteri Petri, 1915 (Figs 38-40)

Material examined. Turkey: İzmir, NW Boz Dağı, 1.600 m, 21.v.1992, S. Zoia leg., 1 ♂ (SZOC).

Occuring throughout Europe. From Greece known from the northeast (Thrakia, Coiffait 1955) and from the south (Taygetos Mts., Růžička 1993). The examined male from the northwestern slope of the Boz Dağı Mts. differs from the central European specimens by the lower margin of metatrochanter with a broad blunt tooth and its apex more strongly narrowed and more strongly curved (Fig. 40). In the specimens from central Europe, the lower margin of the metatrochanter is almost regularly curved up to the apex, apex wider (Fig. 39). Distribution: see Fig. 57.

***Choleva* (*Choleva*) *mertliki* sp. n.**

(Figs 1-12, 51-52)

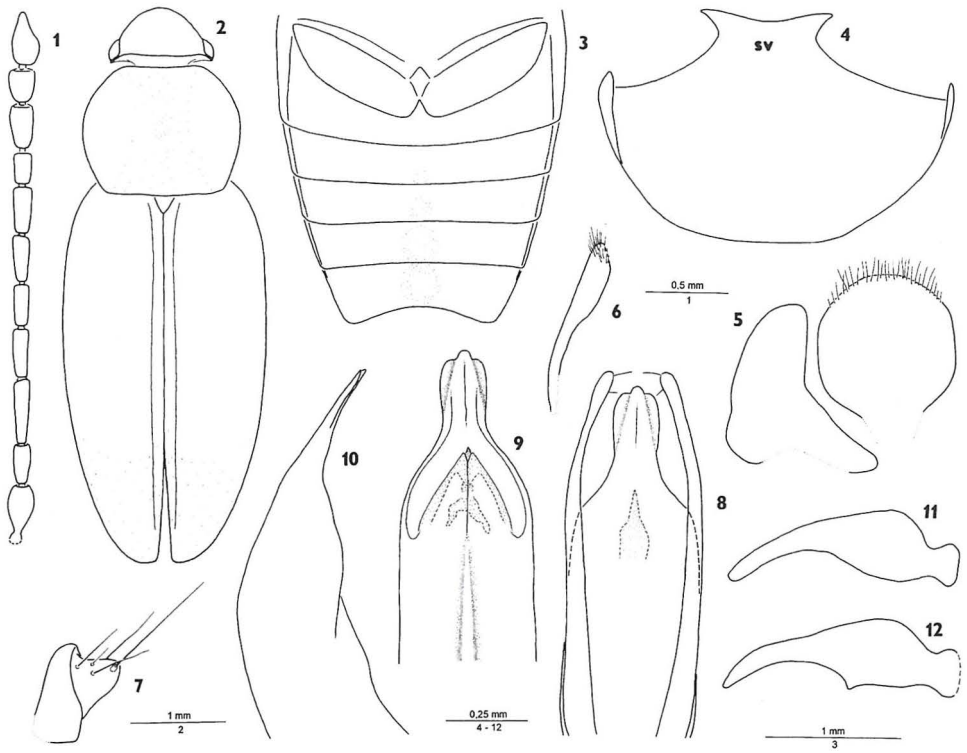
Description. Male. Body length 5.1-5.7 mm (holotype 5.5 mm). Large and robust, winged species (Fig. 2). Colouration very variable. Head black, pronotum either completely yellow-brown or with a broad infuscate mediolongitudinal stripe reaching both basal and anterior margins of pronotum, sometimes pronotum black-brown with yellow-brown lateral borders or completely black. Elytra usually completely yellow-brown to brown, sometimes with infuscate apex. In bicoloured specimens, the apex of elytra and a narrow sutural strip black, the rest of elytra yellow-brown to brown. Maxillary palpi yellow-brown, legs yellow-brown to brown. Antennae either completely yellow-brown, or infuscate at the distal end. Pubescence yellow, recumbent.

Antenna (Fig. 1) long and slender, twice as long as the maximum width of pronotum. All antennomeres longer than wide. Length to width ratios of antennomeres I-XI as follows: 49 x 22, 32 x 14, 54 x 13, 41 x 13, 35 x 13, 39 x 14, 40 x 16, 26 x 15, 34 x 21, 27 x 22, 46 x 23.

Head sparsely and very finely punctate with distinct microsculpture.

Pronotum widest at its midlength, 1.23-1.35 (holotype 1.25) times as wide as long and 1.43-1.58 (holotype 1.50) times as wide as the maximum width of head across eyes. Lateral margins regularly arcuate. Surface of pronotum flattened at posterior angles; with flat, sometimes little distinct impression on the disc. Punctation and reticulation analogous to that of head, but punctures slightly coarser.

Elytra convex, 1.73-1.87 (holotype 1.83) times as long as their combined width, 2.79-3.23 (holotype 2.96) times as long as the length of pronotum and 1.21-1.31 (holotype 1.30) times as wide as the maximum width of pronotum. Tips of elytra separately rounded.



Figs 1-12. 1, 2, 8-11 - *Choleva* (*Choleva*) *mertliki* sp. n., holotype ♂; 3, 12 - ditto, paratype ♂, Güzeloluk ; 4-7 - ditto, allotype ♀. 1 - right antenna dorsally; 2 - habitus dorsally; 3 - abdomen ventrally; 4 - ventrite VIII dorsally, sv - spiculum ventrale; 5 - terga IX and X dorsally; 6 - tergum X laterally; 7 - left stylus ventrally; 8 - aedeagus dorsally; 9 - ditto ventrally; 10 - ditto laterally; 11-12 - right metatrochanter ventrally.

Obr. 1-12. 1, 2, 8-11 - *Choleva* (*Choleva*) *mertliki* sp. n., holotypus ♂; 3, 12 - dtto, paratypus ♂, Güzeloluk ; 4-7 - dtto, alotypus ♀. 1 - pravé tykadlo shora; 2 - obrys těla shora; 3 - zadeček zdola; 4 - osmý ventrit shora, sv - spiculum ventrale; 5 - deváté a desáté tergum shora; 6 - desáté tergum ze strany; 7 - levý stylus zdola; 8 - aedeagus shora; 9 - dtto zdola; 10 - dtto ze strany; 11-12 - pravý metatrochanter zdola.

Punctures of elytra rasp-like, somewhat coarser than those of pronotum. Spaces between punctures smooth and shining.

Abdominal ventrites with median impression (Fig. 3).

Protarsus very long, first tarsal segment much wider than the width of the apical portion of protibia. Mesotibia straight, only in apical portion gently curved. Apical margin of metafemur straight. Metatrochanter (Figs 11-12) very long, prolonged into long and gently curved process. Posterior margin either regularly arcuate to feebly angulate (Fig. 11) or with distinct tooth (Fig. 12); apex in lateral view curved.

Aedeagus (Figs 8-10) long, dorsoventrally flattened. In dorsal view, narrowed in apical portion, its apex moderately dilated ("winged") laterally and with small gibbosity dorsally (Fig. 8). In ventral view, basal portion of aedeagus sharply carinate, intermediate portion concave with two short ligulae. Apical portion with distinct fine mediolongitudinal furrow reaching almost to the apical gibbosity (Fig. 9). Apical portion in lateral view straight (Fig. 10). Internal sac with elongate tooth. Paramere longer than aedeagus, each with two apical setae.

Female. Body length 5.0-5.6 mm (allotype 5.5 mm). Colouration as in male, the paler colouration generally prevails: pronotum black-brown with light lateral borders, elytra completely yellow-brown. Allotype: pronotum yellow-brown with broad infuscate mediolongitudinal strip, elytra yellow-brown, infuscate at apex. Pronotum 1.27-1.38 (allotype 1.30) times as wide as long. Elytra 1.68-1.85 (allotype 1.77) times as long as their combined width, 2.83-3.09 (allotype 2.95) times as long as pronotum and 1.21-1.34 (allotype 1.27) times as wide as the maximum width of pronotum.

Ventrite VIII (Fig. 4, 51) rounded at distal margin, spiculum ventrale shallowly arcuately emarginate with strong pointed corners. Tergum IX shorter than tergum X, tergum X subquadrangular, regularly rounded both at distal margin (Fig. 5, 52) and laterally (Fig. 6). Stylus with four long and one short setae (Fig. 7).

Type material. Holotype: ♂, "TR mer. Icel, Göktepe Dagi Mts., GÜZELOLUK, 21. - 23. 5. 1995, J. Mertlik leg." [southern Turkey, İçel prov., Güzeloluk env., 1.500 m, 36°48'N 34°08'E]. Allotype: ♀ [GD], the same data. Paratypes: 24 ♂♂, 14 ♀♀ [2 ♀♀ GD], the same data; 8 ♂♂, 5 ♀♀, "TR - prov. MERSIN, GÜZELOLUK, 21. - 23. 5. 1995, M. Samek leg."; 36 ♂♂, 46 ♀♀, "TURKEY, prov. Mersin, Göktepe Dagi Mts., GÜZELOLUK, 25. 5. 1998, V. Kubík leg."; 77 ♂♂, 57 ♀♀ [2 ♀♀ GD], "TURKEY, prov. Mersin, Göktepe Dagi Mts., GÜZELOLUK, 26. 5. 1998, J. Mertlik leg."; 6 ♂♂, 1 ♀ [GD], "TR - prov. Içel, SERTAVUL GEÇIDI 1610 m.n.m., 19.VI.1998, Z. Košťál + V. Bíža lgt." [southern Turkey, 30 km south of Karaman, 1.610 m, 36°55'N 33°17'E]; 1 ♂, "Sy - Jabal an Nusayriyah, SLINFAH env., 30.V.1998, Z. Košťál + V. Bíža lgt." [northwestern Syria, Jabal an Nusayriyah Mts., 35°36'N 36°11'E]. Holotype and allotype are deposited in JVAC; paratypes from Güzeloluk are deposited in JMEC (10 ♂♂, 10 ♀♀), JROC (1 ♂), JRUC (4 ♂♂, 4 ♀♀), JVAC (93 ♂♂, 66 ♀♀), MHNG (2 ♂♂, 2 ♀♀), MNHM (2 ♂♂, 2 ♀♀), MPEC (2 ♂♂, 2 ♀♀), NHMW (2 ♂♂, 2 ♀♀), NMPC (2 ♂♂, 2 ♀♀), OMOC (2 ♂♂, 2 ♀♀), PGIC (2 ♂♂, 2 ♀♀), SZOC (2 ♂♂, 2 ♀♀), TMBC (2 ♂♂, 2 ♀♀), TSIC (1 ♂, 1 ♀), VKUC (18 ♂♂, 23 ♀♀) and ZMAC (1 ♂, 1 ♀); paratypes from Sertavul Geçidi in JRUC (1 ♂) and JVAC (5 ♂♂, 1 ♀); paratype from Slinfah in JVAC (1 ♂).

Name derivation. The new species is dedicated to one of its collectors, my friend Josef

Mertlik (Hradec Králové).

Differential diagnosis. *Choleva* (*Choleva*) *mertliki* sp. n. is most closely related to *C.* (*C.*) *reitteri* Petri, 1915. Males of *C. mertliki* sp. n. differ by the shape of the apical portion of aedeagus (Fig. 8), which is either parallel-sided or slightly dilated towards the apex with apical gibbosity rounded, hemisphaerical. Metatrochanter is longer and gently curved (Figs 11-12). In *C. reitteri* the apical portion of aedeagus is regularly tapering all along its length, with apical gibbosity more pointed (Fig. 38); metatrochanter shorter and more strongly curved (Figs 39-40). The female of *C. mertliki* sp. n. differs from that of *C. reitteri* distinctly by the shape of the tergum X (Fig. 5, 52), which is subquadrangular, nearly as long as wide, and by the shape of the proximal margin of ventrite VIII (spiculum ventrale) (Fig. 4, 51), the median portion of which is distinctly elevated with large corners. In *C. reitteri* is tergum X more than three times longer than wide and spiculum ventrale has small corners projecting from the proximal margin of the ventrite VIII. The form of female genitalia and the shape of spiculum ventrale in *C. mertliki* sp. n. resemble those in *C.* (*C.*) *oresitropha* Ganglbauer, 1896, but the two species differ in the following characters: *C. mertliki* sp. n. - body length 5.0-5.7 mm; pronotum less transverse, 1.23-1.38 times as wide as long with basal margin only slightly longer than apical one; tergum X (Fig. 5) subquadrangular, somewhat rounded with distal margin regularly arcuate and lateral margins almost straight. *C. oresitropha* - body length 4.1-4.4 mm (4.5-5.0 according to Jeannel 1936: 266); pronotum 1.48-1.52 times as wide as long, its basal margin much longer than the apical one; tergum X almost circular (Fig. 47). Spiculum ventrale is more robust in *C. oresitropha* (Fig. 46), with large corners gently curved at the base and the emargination of apical margin deeper than in *C. mertliki* sp. n. (Fig. 4, 51).

Collection circumstances. Most specimens of the new species were collected in 1995 and 1998 in a deserted village about 5 km northwesterly of Güzeloluk. All adults collected flew in evening at a wall with outpouring stream water (J. Mertlik, M. Samek, both Hradec Králové, and V. Kubík, Chlumec nad Cidlinou, pers. comm.). Specimens from Sertavul Geçidi were collected in flight in evening or in night, and one male of the new species from Slinfah was collected on flight (Z. Košťál and V. Bíža, both Pardubice, pers. comm.).

Distribution (Fig. 54)**:** southern Turkey (Göktepe Dağı Mts.) and northwestern Syria (Jabal an Nusayriyah Mts.).

In the following key is *Choleva mertliki* sp. n. compared with *C. reitteri* from the "*reitteri*" group sensu Jeannel (1923: 23; 1936: 254) and, because of the similarity of female genitalia and spiculum ventrale, also with *C. oresitropha* from the "*oresitropha*" group sensu Jeannel (1923: 23; 1936: 254).

Males

1 (2) Small species, body length not exceeding 4.5 mm. Apical portion of aedeagus narrowed into acute point. Parameres shorter than aedeagus. Northern Romania, western Ukraine. ..... *C. oresitropha* Ganglbauer, 1896

2 (1) Larger species, body length over 4.5 mm. Apex of aedeagus blunt with small gibbosity (Figs 8, 38). Parameres longer than aedeagus.

3 (4) Apical portion of aedeagus parallel-sided to gradually dilated apically, only at the apex flattened laterally (Fig. 8). Metatrochanter longer, its process little curved (Figs 11-12). 5.0-5.7 mm. Southern Turkey, northwestern Syria. ..... *C. mertliki* sp. n.

4 (3) Apical portion of aedeagus gradually narrowed towards the apex, flattened sides long, reaching from the apex up to median portion of aedeagus (Fig. 38). Metatrochanter shorter, its process more strongly curved (Figs 39-40). 5.0-5.5 mm. Europe, western Turkey. ..... *C. reitteri* Petri, 1915

Females

1 (2) Tergum X elongate, more than three times as long as wide. Spiculum ventrale very low, developed only as two tooth-like protuberances projecting from proximal margin of ventrite VIII. ..... *C. reitteri*

2 (1) Tergum X as long as wide (Figs 5, 47, 52). Spiculum ventrale larger with two corners at its apical margin (Figs 4, 46, 51).

3 (4) Small species, body length not exceeding 4.5 mm. Tergum X circular, twice shorter than the length of tergum IX (Fig. 47). Spiculum ventrale larger and wider, more deeply emarginate between large corners (Fig. 46). .. *C. oresitropha*

4 (3) Large species, body length over 5.0 mm. Tergum X subquadrangular, 1.2 times as short as tergum IX (Fig. 5, 52). Spiculum ventrale smaller and narrower, less deeply emarginate between corners (Fig. 4, 51). ..... *C. mertliki* sp. n.

Choleva* (*Choleva*) cf. *cisteloides (Frölich, 1799) (Fig. 53)

Material examined. Turkey: Isparta, Yukarigökdere, 22.v.1998, beating in evening, J. Mertlik leg., 1 ♀ [GD] (JVAC).

One female of *C. cisteloides* is given from northwestern Turkey by Szymczakowski (1962): Bursa, 1931, Jureček [leg.]; Choleva cisteloides (Fröl.), det. Szymczakowski 1961 (NMPC). Re-examination of the specimen shows that the tergum X is almost three times as long as wide, in distal portion feebly dilated with regularly arcuate distal margin. Both median and proximal portions are a little narrower than the apical one and parallel-sided all along their length. Tergum IX is much shorter than X. According to the shape and length of the genital terga it is obvious that it is a misidentified specimen which cannot be identified correctly because of the absence of further abdominal segments bearing additional diagnostic characters. The specimen from Yukarigökdere agrees well with typical *C. cisteloides* in the shape of tergum X. However, the shape of spiculum ventrale (Fig. 53) strongly differs in the shape of the anterior margin and in the corners being slightly curved posteriad. Distribution: see Fig. 57.

***Choleva* (*Choleva*) *safranboluensis* sp. n.**
(Figs 13-18, 20)

Description. Male. Body length 4.9 mm. Winged. Body slender (Fig. 14). Head, pronotum and elytra black-brown, legs red-brown. Tarsi, antennae and maxillary palpi yellow-brown. Pubescence yellow, recumbent, on pronotum and elytra longer and closer than on head.

Antenna (Fig. 13) long and slender, almost twice as long as the maximum width of pronotum. All antennomeres longer than wide. Length to width ratios of antennomeres I-XI as follows: 48 x 20, 29 x 11, 47 x 12, 36 x 10, 28 x 11, 35 x 13, 36 x 18, 24 x 16, 32 x 20, 28 x 21, 38 x 20.

Head finely and sparsely punctate, dull. Spaces between punctures distinctly microsculptured.

Pronotum widest at its midlength, 1.30-1.35 (holotype 1.30) times as wide as long, 1.47-1.53 (holotype 1.47) times as wide as maximum width of head across eyes. Lateral margins in anterior half regularly arcuate, in posterior half feebly arcuate (holotype) to straight. Surface at

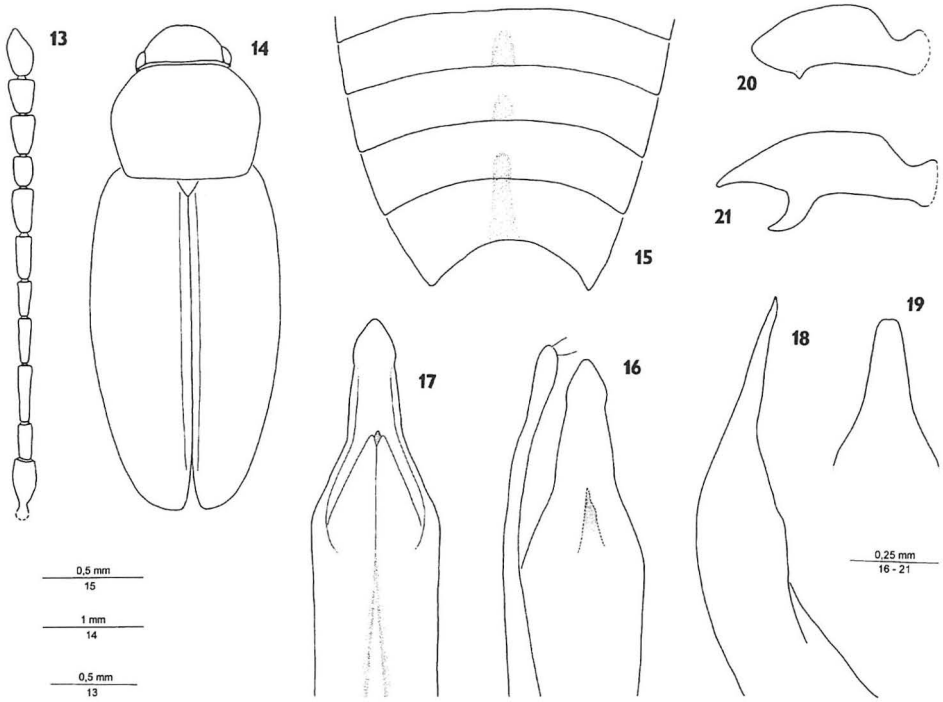
posterior corners flattened. Punctures coarser and closer than on head, spaces between them microsculpture.

Elytra slender, convex, 1.80-1.82 (holotype 1.80) times as long as their combined width, 3.00-3.10 (holotype 3.00) times as long as pronotum and 1.25-1.28 (holotype 1.28) times as wide as maximum width of pronotum. Tips of elytra separately rounded. Punctures as close as, but coarser than those of pronotum. Spaces between punctures smooth and shining.

Abdominal ventrites (Fig. 15) with median impressions.

Protarsus long, first tarsomere wider than the width of apical portion of protibia. Mesotibia straight, only in apical portion gently curved. Apical margin of metafemur straight, without tooth. Metatrochanter (Fig. 20) short with blunt terminal point and with small tooth at posterior margin.

Aedeagus (Figs 16-18) long, dorsoventrally flattened. In dorsal view narrowed in apical portion, at distal end feebly dilated, subtriangular, with bluntly pointed apex (Fig. 16); basal portion in ventral view carinate in the middle, median portion concave with two long ligu-



Figs 13-21. 13-18, 20 - *Choleva* (*Choleva*) *safranboluensis* sp. n., holotype ♂; 19 - *C. angustata*, Slovenia, Luče, Huda luknja [cave]; 21 - ditto, Romania, Valisoara. 13 - right antenna dorsally; 14 - habitus dorsally; 15 - abdomen ventrally; 16 - aedeagus dorsally; 17 - ditto ventrally; 18 - ditto laterally; 19 - apical part of aedeagus dorsally; 20-21 - right metatrochanter ventrally.

Obr. 13-21. 13-18, 20 - *Choleva* (*Choleva*) *safranboluensis* sp. n., holotypus ♂; 19 - *Ch. angustata*, Slovinsko, Luče, Huda luknja; 21 - dtto, Rumunsko, Valisoara. 13 - pravé tykadlo shora; 14 - obrys těla shora; 15 - zadeček zdola; 16 - aedeagus shora; 17 - dtto zdola; 18 - dtto ze strany; 19 - horní část aedeagu shora; 20-21 - pravý metatrochanter zdola.

lae (Fig. 17); apical portion in lateral view straight, tip gently curved dorsally (Fig. 18). Internal sac with elongate tooth. Paramere longer than aedeagus, each with two setae at apex.

Female. Unknown.

Type material. Holotype: ♂, "TR - prov. ZONGULDAK, Safranbolu, 1000 m, 4. - 5. 6. 1996, J. Vávra lgt." [northern Turkey, 6 km north of Safranbolu, 1.000 m, 41°18'N 32°42'E]. Paratype: ♂, the same data. All deposited in JVAC.

Name derivation. Name of the new species is derived from its type locality, town Safranbolu.

Differential diagnosis. *Choleva* (*Choleva*) *safranboluensis* sp. n. belongs, according to the shape of aedeagus, metatrochanter and general appearance to the "*cisteloides*" group. It is most closely related to *C.* (*C.*) *angustata* (Fabricius, 1781), *C.* (*C.*) *glauca* Britten, 1918 and *C.* (*C.*) *fencli* Růžička, 1993. Other species of the "*cisteloides*" group differ from the new species by the absence of the tooth on metatrochanter. In *C. glauca* and *C. fencli* is the tooth of metatrochanter very long, much longer than the very small tooth (Fig. 20) in *C. safranboluensis* sp. n. Apical portion of aedeagus in *C. glauca* is very narrow, not dilated at the apex (dorsal view), in *C. fencli* is the aedeagus gradually narrowed distally all along its length. In *C. angustata* is the tooth of metatrochanter larger, broad and curved (Fig. 21) and the apical portion of aedeagus is in dorsal view gradually narrowed towards the apex (Fig. 19), while it is somewhat dilated, subtriangular, in *C. safranboluensis* sp. n. (Fig. 16). Key to identification of the species of the "*cisteloides*" group is given below (see *C. kostali* sp. n.).

Collection circumstances. Both specimens were collected after rain in the gallery of a small mammal in a sparse forest of oaks (*Quercus* sp.) and pines (*Pinus* sp.) on a loamy ground.

Distribution (Fig. 54)**:** northern Turkey.

Choleva (*Choleva*) *kostali* sp. n.

(Figs 22-30, 48)

Choleva (*Choleva*) *angistrina* Reitter, 1887, sensu Szymczakowski 1965b: 525.

Description. Male. Length 4.5-4.9 mm (holotype 4.9 mm). Winged. Body very slender (Fig. 23). Head brown to black, pronotum and elytra yellow-brown, disc of pronotum sometimes infuscate (holotype). Legs and maxillary palpi yellow-brown. Antennae yellow-brown, infuscate apically. Pubescence yellow, recumbent, short on head and pronotum, longer on elytra.

Antenna (Fig. 22) long and slender, nearly twice as long as maximum width of pronotum. All antennomeres longer than wide, length to width ratios of antennomeres I-XI as follows: 47 x 19, 34 x 13, 40 x 12, 39 x 13, 30 x 11, 36 x 12, 38 x 15, 26 x 14, 32 x 16, 25 x 18, 37 x 19.

Head very finely and sparsely punctulate, dull, surface between punctures distinctly microsculptured.

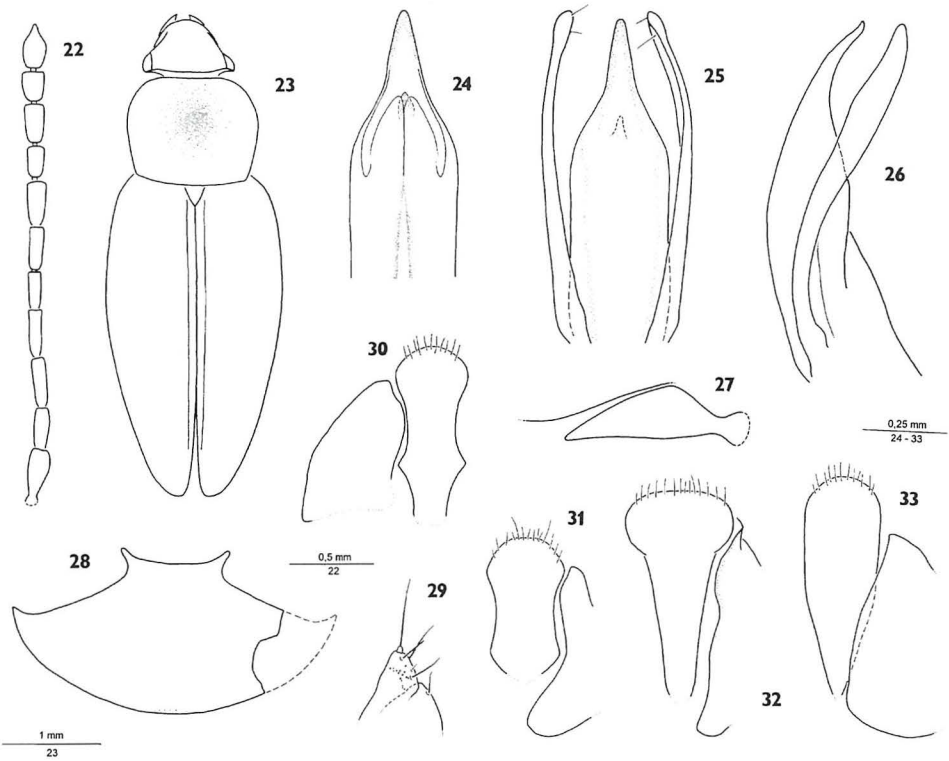
Pronotum widest at its midlength, 1.23-1.24 (holotype 1.24) times as wide as long, 1.43-1.47 (holotype 1.43) times as wide as maximum width of head across eyes. Lateral margins in anterior half regularly arcuate, in posterior half almost straight. Posterior corners flattened.

Punctation and microsculpture of pronotum as on head, punctures somewhat coarser. Surface dull.

Elytra slender, convex, 1.80-1.81 (holotype 1.81) times as long as their combined width, 2.93-3.02 (holotype 3.02) times as long as pronotum and 1.34 times as wide as maximum width of pronotum. Tips of elytra separately rounded. Punctures rasp-like, much coarser than on head and pronotum, spaces between them smooth and shining.

Abdominal ventrites flattened in the middle but without distinct impressions.

Protarsus long, first tarsomere wider than the width of apical portion of protibia. Mesotibia straight, only in apical portion gently curved. Apical margin of metafemur straight. Metatrochanter (Fig. 27) long, gradually narrowed towards the acute terminal point, its ventral margin straight.



Figs 22-33. 22-27 - *Choleva* (*Choleva*) *kostali* sp. n., holotype ♂; 28-30 - ditto, allotype ♀; 31 - *C. cisteloides*, Slovakia, Hrušovo; 32 - *C. glauca*, Moravia, Hukvaldy; 33 - *C. angustata*, Slovakia, Hrušovo. 22 - right antenna dorsally; 23 - habitus dorsally; 24 - aedeagus ventrally; 25 - ditto dorsally; 26 - ditto laterally; 27 - right metatrochanter ventrally; 28 - ventrite VIII dorsally; 29 - right stylus ventrally; 30-33 - tergum IX and X dorsally.

Obr. 22-33. 22-27 - *Choleva* (*Choleva*) *kostali* sp. n., holotypus ♂; 28-30 - dtto, alotypus ♀; 31 - *Ch. cisteloides*, Slovensko, Hrušovo; 32 - *Ch. glauca*, Morava, Hukvaldy; 33 - *Ch. angustata*, Slovensko, Hrušovo. 22 - pravé tykadlo shora; 23 - obrys těla shora; 24 - aedeagus zdola; 25 - dtto shora; 26 - dtto ze strany; 27 - pravý metatrochanter zdola; 28 - osmý ventrit shora; 29 - pravý stylus zdola; 30-33 - deváté a desáté tergum shora.

Aedeagus (Figs 24-26) long, dorsoventrally flattened. Basal portion in dorsal view strongly flattened laterally, apical portion strongly gradually narrowed towards apex (Fig. 25). Basal portion in ventral view sharply carinate in the middle, median portion concave with long paired ligulae (Fig. 24). Apex in lateral view gently curved (Fig. 26). Paramere a little longer than aedeagus, each with two setae at apex, depressed laterally, in lateral view strongly dilated in apical portion (Figs 25-26).

Female (Fig. 48). Length 4.6-4.8 mm (allotype 4.6 mm). Colouration as in male, pronotum sometimes almost completely black, only lateral borders yellow-brown (allotype). Pronotum 1.26-1.28 (allotype 1.26) times as wide as long. Elytra 1.77-1.86 (allotype 1.86) times as long as their combined width, 3.06-3.19 (allotype 3.19) times as long as maximum length of pronotum and 1.36 times as wide as maximum width of pronotum.

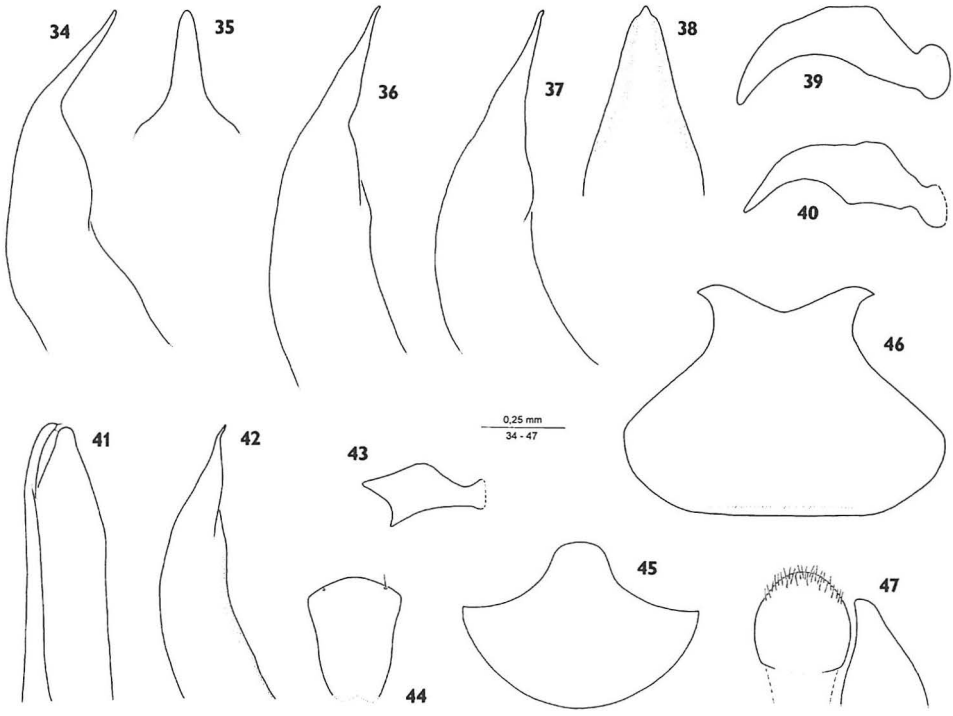
Distal margin of ventrite VIII (Fig. 28) regularly arcuate. Spiculum ventrale broadly emarginate with two distinct corners. Tergum IX shorter than tergum X, which is dilated in distal portion with regularly arcuate distal margin, in proximal portion with broad and sharp teeth laterally (Fig. 30). Stylus (Fig. 29) with four long and one short setae.

Type material. Holotype: ♂, "Tr., Pozanti p. Adana, 17. - 20. 5. 1995, lgt. Kopecký" [southern Turkey, 3-4 km southeast of Pozanti, Adana env., 1.200-1.500 m, 37°27'N 34°54'E]. Allotype: ♀ [GD], "Turkey - prov. Adana, 20 km NW of Erdemli, 25. V. 1995, V. Bíža + Z. Košťál lgt." [southern Turkey, 20 km northwest of Erdemli, 36°44'N 34°09'E]. Paratypes: 1 ♂, "Gulek [green label, Reitter's MS], 356, Choleva n. sp. pr. elongata Rttr. [Reitter's MS], Choleva angistrina Reitt. [Szymczakowski's MS] det. Szymczakowski 1964" [southern Turkey, Gülek, 37°14'N 34°48'E]; 1 ♀, "TR mer., vill. IÇEL, UZUNCABURÇ, 10. - 11. V. 1994, P. PRŮDEK, J. KOVALOVSKÝ leg." [southern Turkey, İçel prov., Uzuncaburç-monument, 20 km north of Silifke, 36°34'N 33°57'E]; 1 ♀, "TURCIA MER., ERDEMLI, 22. 5. 1995, V. DUŠÁNEK leg." [southern Turkey, 20 km northwest of Erdemli, 36°44'N 34°09'E]; 1 ♀ [GD], "TURKEY, prov. Mersin, Göktepe Dagi Mts., Güzeloluk, 25. 5. 1998, V. Kubík leg." [southern Turkey, İçel prov., 5 km northwest of Güzeloluk, 1.500 m, 36°48'N 34°08'E]. Holotype and allotype are deposited in JVAC, paratypes in MNHN (1 ♂), JRUC (1 ♀, Uzuncaburç) and JVAC (2 ♀♀, Erdemli, Güzeloluk).

Name derivation. Dedicated to my friend and one of the collectors of the new species, Zdeněk Košťál (Pardubice).

Differential diagnosis. *Choleva* (*Choleva*) *kostali* sp. n. is classified in the "*cisteloides*" group. The edentate posterior margin of metatrochanter (Fig. 27) distinguishes it from the species with dentate metatrochanter (*C. angustata*, *C. safranboluensis* sp. n., *C. glauca*, *C. fencli*). From the other species with edentate metatrochanter differs *C. kostali* sp. n. by the posterior margin of the metatrochanter, which is straight all along its length (Fig. 27), while being either distinctly curved apically in *C.* (*C.*) *bicolor* Jeannel, 1923, *C.* (*C.*) *zolotarevi* Reitter, 1909, *C.* (*C.*) *obscuripes* Reitter, 1888 and *C.* (*C.*) *sagittaria* Růžička, 1993 or outcurved in median portion in *C. cisteloides*. From *C.* (*C.*) *rousi* Růžička, 1993, in which is the posterior margin of metatrochanter almost straight, differs *C. kostali* sp. n. distinctly by its larger size (4.5-4.9 mm in *C. kostali* sp. n., 3.7-4.0 mm in *C. rousi*), longer antenna and a quite different apical portion of aedeagus in dorsal view. The shape of the apical portion of aedeagus in *C. kostali* sp. n. is most similar to that in *C. bicolor*, *C. cisteloides*, *C. zolotare-*

vi and *C. obscuripes*, from which *C. kostali* sp. n. differs by the form of the dorsal margin of aedeagus (lateral view), which is distinctly arcuate in apical portion, flatly S-shaped, with the apex curved dorsally (Fig. 26); the dorsal margin is straight in *C. cisteloides* and *C. obscuripes* (Fig. 34) or straight with the apex gently curved ventrally in *C. bicolor* and *C. zolotarevi* (Figs 36-37). In dorsal view differs the apical portion of aedeagus by its length and shape (short and parallel-sided in *C. bicolor*, longer and carinate in *C. zolotarevi* and *C. obscuripes*); in *C. kostali* sp. n. it is very similar to that of *C. cisteloides*, from which it differs by tapering more regularly between its median and apical portions (Fig. 25), while being rather abruptly narrowed there in *C. cisteloides* (Fig. 35). The tergum X and spiculum ventrale in the female of *C. kostali* sp. n. are most similar to those in *C. cisteloides* and *C.*

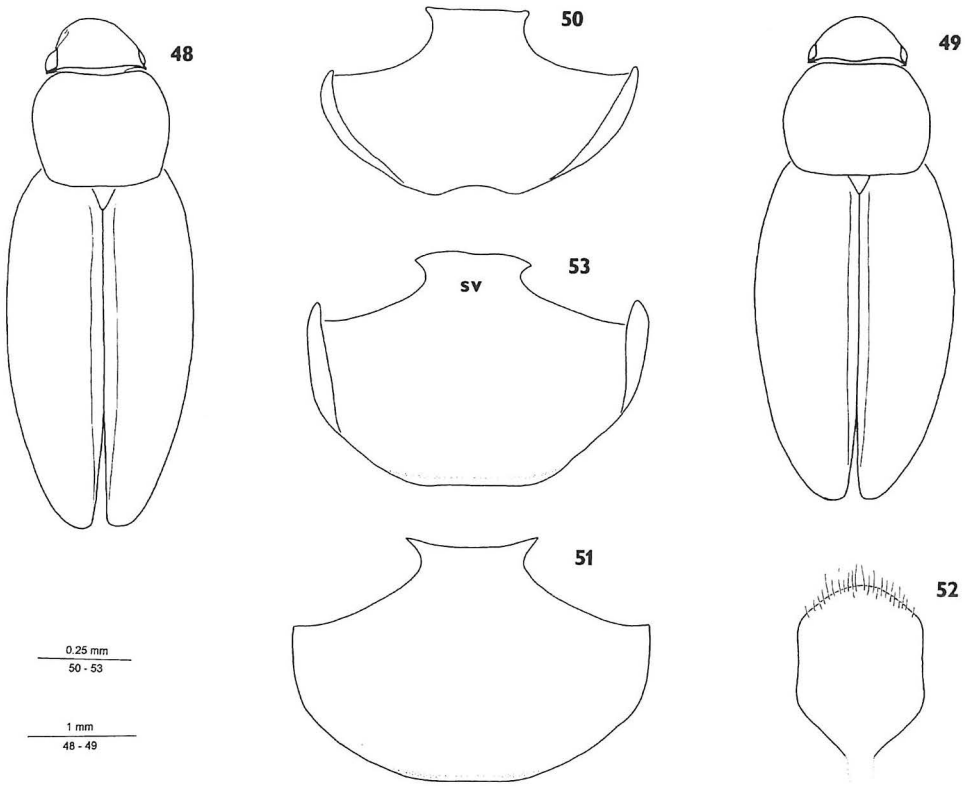


Figs 34-47. 34 - *Choleva* (*Choleva*) *cisteloides*, Moravia, Hukvaldy; 35 - ditto, Bohemia, Trusnov; 36 - *C. zolotarevi*, Caucasus, Berengi; 37 - *C. bicolor*, Moravia, Metylovická hůrka hill; 38-39 - *C. reitteri*, Moravia, Hukvaldy; 40 - ditto, Boz Dağı; 41, 43-44 - *C. cavazzutii*, Muradiye-Şelâlesi; 42 - ditto, Gevaş; 45 - ditto, Isparta; 46-47 - *C. oresitropha*, Romania, Rodnei Mts. 34, 36-37, 42 - aedeagus laterally; 35, 38 - apical part of aedeagus dorsally; 39-40, 43 - right male metatrochanter ventrally; 41 - aedeagus dorsally; 44 - female tergum X dorsally; 45-46 - female ventrite VIII ventrally; 47 - female terga IX and X dorsally.

Obr. 34-47. 34 - *Choleva* (*Choleva*) *cisteloides*, Morava, Hukvaldy; 35 - dtto, Čechy, Trusnov; 36 - *Ch. zolotarevi*, Kavkaz, Berengi; 37 - *Ch. bicolor*, Morava, Metylovická hůrka; 38-39 - *Ch. reitteri*, Morava, Hukvaldy; 40 - dtto, Boz Dağı; 41, 43-44 - *C. cavazzutii*, Muradiye-Şelâlesi; 42 - dtto, Gevaş; 45 dtto, Isparta; 46 47 - *Ch. oresitropha*, Rumunsko, pohoří Rodnei. 34, 36-37, 42 - aedeagus ze strany; 35, 38 - horní část aedeagu shora; 39-40,43 - pravý metatrochanter samce zdola; 41 - aedeagus shora; 44 - desáté tergum samice shora; 45-46 - osmý ventrit samice zdola; 47 - deváté a desáté tergum sami-ce shora.

glauca. *C. kostali* sp. n. differs from them particularly by the shape of tergum X, which is 2.5 times as long as its maximum width, more deeply emarginate laterally in median portion, with the teeth of lateral margins larger and situated more medially (Fig. 30). In *C. cisteloides* and *C. glauca* is the tergum X shorter (1.6-1.9 times as long as wide), in *C. cisteloides* less emarginate laterally in its median portion and hexagonal (Fig. 31), in *C. glauca* more strongly narrowed in proximal portion and without lateral teeth (Fig. 32).

Note. One of the paratypes was described by Szymczakowski (1965b) as the previously unknown male of *Choleva* (*Choleva*) *angistrina* Reitter, 1887, described according the single female from the Angistri Island, Greece. Because all type specimens of *C. kostali* sp. n. originate from the same limited area in southern Turkey, they are supposed to be conspecific. The female of *C. kostali* sp. n. differs from the female holotype of *C. angistrina* (MNHN) by the following characters. *C. kostali* sp. n.: body longer and slender (Fig. 48), pronotum widest at its midlength (Fig. 48), tergum X 1.4 times as long as tergum IX (Fig. 30), distal



Figs 48-53. 48 - *Choleva* (*Choleva*) *kostali* sp. n., allotype ♀; 49-50 - *C. angistrina*, Greece, Angistri Island; 51-52 - *C. mertliki* sp. n., paratype ♀, Güzeloluk; 53 - *C.* cf. *cisteloides*, Turkey, Yukarigökdere. 48-49 - female habitus dorsally; 50-51, 53 - female ventrite VIII dorsally, sv - spiculum ventrale; 52 - female tergum X dorsally.

Obr. 48-53. 48 - *Choleva* (*Choleva*) *kostali* sp. n., alotypus ♀; 49-50 - *Ch. angistrina*, Řecko, ostrov Angistri; 51-52 - *Ch. mertliki* sp. n., paratypus ♀, Güzeloluk; 53 - *Ch.* cf. *cisteloides*, Turecko, Yukarigökdere. 48-49 - obrys těla samice shora; 50-51, 53 - osmý ventrit samice shora, sv - spiculum ventrale; 52 - desáté tergum samice shora.

margin of ventrite VIII not emarginate in the middle (Fig. 28), spiculum ventrale at the proximal margin of ventrite VIII low, distinctly emarginate between corners (Fig. 28). *C. angistrina*: body shorter and wider (Fig. 49), pronotum widest behind its midlength (Fig. 49), tergum X approximately as long as tergum IX (according to Jeannel 1936: fig. 651), distal margin of ventrite VIII distinctly broadly emarginate (Fig. 50), spiculum ventrale high and between small corners straight (Fig. 50).

Collection circumstances. Holotype was collecting by beating oak branches (*Quercus* sp.) 3 to 4 km southwest of Pozanti village (T. Kopecký, Hradec Králové, pers. comm.), allotype by sweeping or beating vegetation (Z. Košťál, pers. comm.). Paratypes from Uzuncaburç was caught in flight (P. Průdek, Brno, pers. comm.), from Erdemli was beating oak branches (*Quercus* sp.) (V. Dušánek, Hradec Králové, pers. comm.) and from Güzeloluk in flight at a wall with outpouring stream water, together with *C. mertliki* sp. n. (J. Mertlik, pers. comm.). All specimens were collected in evening or in night.

Distribution (Fig. 54)**:** southern Turkey (mountains Göktepe Dağı and Bolkar Dağları).

Both *C. safranboluensis* sp. n. and *C. kostali* sp. n. are classified as members of the "*cisteloides*" group. The key to the species of this group by Růžička (1993) is modified here to include the new species. *Choleva* (*Choleva*) *obscuripes* Reitter, 1888 and *C. safranboluensis* sp. n. are not included into the key for females as only males are known. Due to the insufficient description, *C.* (*C.*) *stricta* Yablokov-Khnzoryan, 1963 (described after one female from Caucasus) is not included into the key for the "*cisteloides*" group.

Males

1 (6) Metatrochanter short, with one prominent tooth at posterior margin.

2 (5) Tooth at the posterior margin of metatrochanter either small or larger, but curved (Figs 20-21).

3 (4) Tooth of metatrochanter larger, curved (Fig. 21). Apical portion of aedeagus gradually tapering all along its length, apex truncate or very shallowly emarginate (Fig. 19). 4.5-5.0 mm. Europe. ..... *C. angustata* (Fabricius, 1781)

4 (3) Tooth of metatrochanter very small (Fig. 20). Apical portion of aedeagus narrowed, apex moderately dilated, subtriangular and bluntly pointed (Fig. 16). 4.9 mm. Northwestern Turkey. ..... *C. safranboluensis* sp. n.

5 (2) Tooth of metatrochanter long and straight. .... *C. glauca* Britten, 1918 (Europe), *C. fencli* Růžička, 1993 (Caucasus, northeastern Turkey)

6 (1) Metatrochanter longer, without tooth at posterior margin.

7 (16) Body longer than 4.4 mm. Antennomeres IX and X distinctly longer than wide.

8 (9) Tip of aedeagus dilated, sagittiform (arrowhead-shaped). Parameres slender, round in cross-section. 5.3-5.5 mm. Caucasus. ..... *C. sagittaria* Růžička, 1993

9 (8) Tip of aedeagus simply rounded. Parameres flattened in cross-section.

10 (11) Metatrochanter rhomboidal with shorter, wider and straighter apical portion. Aedeagus dorsoventrally flattened, its apical portion in lateral view straight (Fig. 34), in dorsal view slender with acute point (Fig. 35). 4.5-5.2 mm. Europe, southwestern Turkey. ..... *C. cisteloides* (Frölich, 1799)

11 (10) Metatrochanter with longer and slender apical portion.

12 (13) Metatrochanter at the apex straight (Fig. 27). Aedeagus dorsoventrally flattened, its apical portion in lateral view curved posteriorly (Fig. 26), in dorsal view slender and acutely pointed (Fig. 25). 4.5-4.9 mm. Southern Turkey. ..... *C. kostali* sp. n.

13 (12) Metatrochanter with posteriorly curved apex. Apical portion of aedeagus in lateral view straight (Figs 36-37).

14 (15) Aedeagus dorsoventrally flattened, with short and widely rounded apex. 4.5-5.0 mm. Western and central Europe. ..... *C. bicolor* Jeannel, 1923

15 (14) Apical portion of aedeagus longer, keel-shaped. .... *C. obscuripes* Reitter, 1888, *C. zolotarevi* Reitter, 1909 (both Caucasus)

16 (7) Body length under 4.0 mm. Antennomere IX as long as or slightly longer than wide, antennomere X as long as wide or somewhat transverse. Caucasus. ..... *C. rousi* Růžička, 1993

Females

1 (10) Body longer than 4.0 mm. Antennomeres IX and X as long as wide.
2 (3) Distal margin of ventrite VIII with notch in the middle. ..... *C. bicolor*, *C. sagittaria* and *C. zolotarevi*
3 (2) Distal margin of ventrite VIII either regularly arcuate or straight, never with median notch.
4 (5) Spiculum ventrale of ventrite VIII robust, with produced lateral portions. Tergum X long and slender (more than 2.8 times as long as its maximum width), not dilated in distal portion (Fig. 33). ..... *C. angustata*
5 (4) Spiculum ventrale of ventrite VIII short with small lateral portions. Tergum X either small or larger (at most 2.5 times as long as wide), then at least in distal portion dilated (Figs 30-32).
6 (7) Tergum X small, hexagonal. Tergum IX distinctly longer than X (Fig. 31). ..... *C. cisteloides*
7 (6) Tergum X longer, distinctly dilated in distal portion. Tergum IX as long or shorter as X (Figs 30, 32).
8 (9) Tergum X without teeth in median portion, regularly narrowed towards its base, twice as long as its maximum width. Tergum IX as long as X (Fig. 32). ..... *C. glauca*
9 (8) Tergum X in median portion with two lateral teeth, 2.5 times as long as its maximum width. Tergum IX distinctly shorter than X (Fig. 30). ..... *C. kostali* sp. n.
10 (1) Body length under 4.0 mm. Antennomere IX as long as wide, antennomere X transverse. ..... *C. rousi*

Choleva (Choleva) elongata (Paykull, 1798)

From Turkey given by Szymczakowski (1970) from "Lydie, montagnes de Tmolos", i.e. Boz Dağ Mts. Distribution: see Fig. 57.

Table 1. Systematic list of the species of *Choleva* Latreille, 1796 (Coleoptera: Leiodidae: Cholevinae) given from Turkey (abbreviations: C - Coiffait, G - Giachino, H - Henrot, J - Jeannel, S - Szymczakowski, V - present paper; preceding the species name: * - the first record from Turkey, ? - the occurrence in Turkey uncertain).
Tabulka 1. Systematický přehled brouků rodu *Choleva* Latreille, 1796 (Coleoptera: Leiodidae: Cholevinae), udávaných z Turecka (použité zkratky: C - Coiffait, G - Giachino, H - Henrot, J - Jeannel, S - Szymczakowski, V - tento článek; před názvem druhu: * - první údaj pro Turecko, ? - nejistý výskyt na území Turecka).

species / druh	map No. / mapka č.	reference(s)/ citace
subgenus *Cholevopsis* Jeannel, 1922		
C. (*Cholevopsis*) *major turcica* Coiffait, 1959	55	C 1959, G 1990, V
C. (*Cholevopsis*) *paskoviensis* Reitter, 1913	55	J 1936, C 1959, G 1990
subgenus *Choleva* s. str.		
C. (*Choleva*) *anatina* Szymczakowski, 1962	55	S 1962, S 1965b, G 1990
C. (*Choleva*) *dorsigera* (Marseul, 1864)	55	J 1936, C 1959, S 1962, V
C. (*Choleva*) *marseuli* Jeannel, 1923	55	J 1923, J 1936, H 1967, S 1970
?*C.* (*Choleva*) *agilis* (Illiger, 1798)	56	Reitter 1896 (as *C. adusta*), J 1923, J 1936, S 1965a, Schilthuizen 1990
C. (*Choleva*) *bedeli* Jeannel, 1923	56	J 1923, J 1936, C 1959, V
C. (*Choleva*) *cavazzutii* Giachino, 1990	56	G 1990, V
C. (*Choleva*) *emgei* Reitter, 1884	-	Jacobson 1910, J 1923, J 1936, C 1959, S 1965a
C. (*Choleva*) *oblonga oblonga* Latreille, 1807	57	J 1936, C 1959, V
C. (*Choleva*) *nivalis* (Kraatz, 1856)	-	S 1959, S 1961, Burakowski, Mroczkowski & Stefańska 1978
**C.* (*Choleva*) *reitteri* Petri, 1915	57	V
**C.* (*Choleva*) *mertliki* sp. n.	54	V
**C.* (*Choleva*) cf. *cisteloides* (Frölich, 1799)	57	S 1962 (missidentification of *C. cisteloides*), V
C. (*Choleva*) *fencli* Růžička, 1993	57	Růžička 1993
**C.* (*Choleva*) *safranboluensis* sp. n.	54	V
**C.* (*Choleva*) *kostali* sp. n.	54	V
C. (*Choleva*) *elongata* (Paykull, 1798)	57	S 1970

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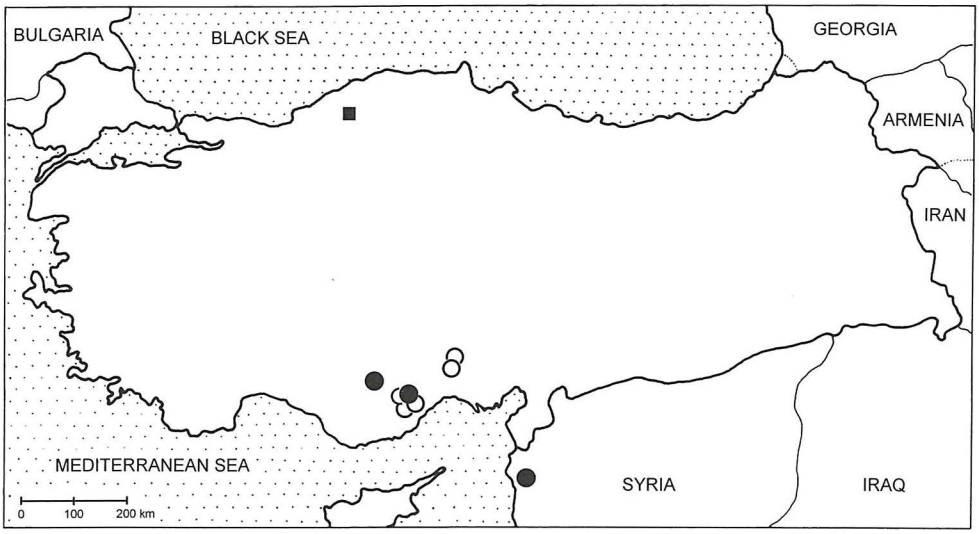


Fig. 54. Geographic distribution of new species of *Choleva* in Turkey. ● - *C. mertliki* sp. n., ■ - *C. safranboluensis* sp. n., ○ - *C. kostali* sp. n.
Obr. 54. Mapa rozšíření nových druhů rodu *Choleva* v Turecku. ● - *Ch. mertliki* sp. n., ■ - *Ch. safranboluensis* sp. n., ○ - *Ch. kostali* sp. n.

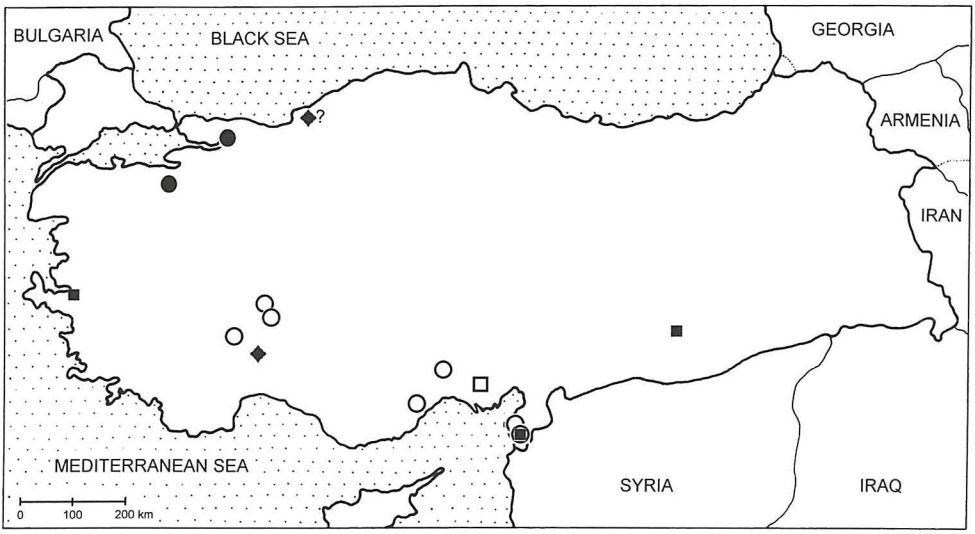


Fig. 55. Geographic distribution of species of *Choleva* in Turkey. ○ - *C. major turcica*, ● - *C. paskoviensis*, ◆ - *C. anatina*, ■ - *C. dorsigera*, □ - *C. marseuli*.
Obr. 55. Mapa rozšíření druhů rodu *Choleva* v Turecku. ○ - *Ch. major turcica*, ● - *Ch. paskoviensis*, ◆ - *Ch. anatina*, ■ - *Ch. dorsigera*, □ - *Ch. marseuli*.

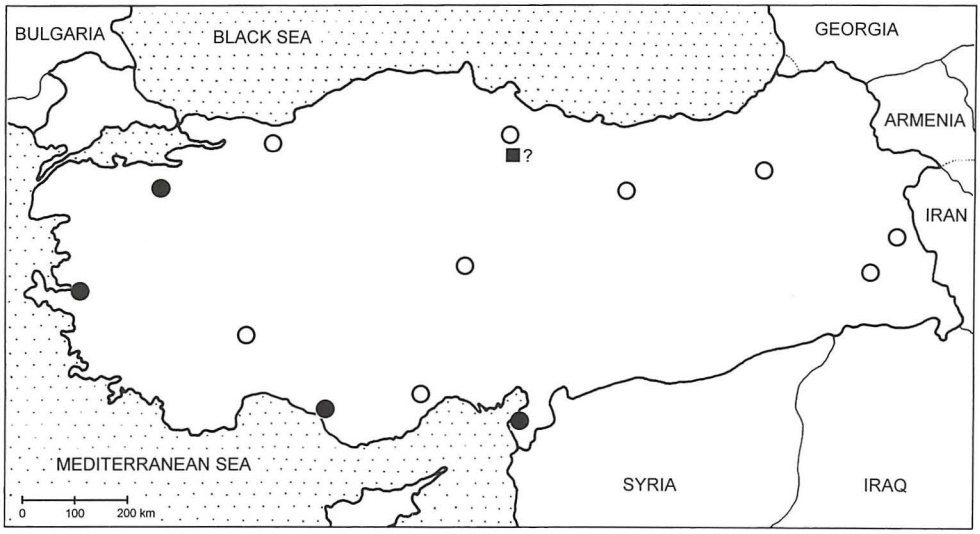


Fig. 56. Geographic distribution of species of *Choleva* in Turkey. ■ - *C. agilis*, ● - *C. bedeli*, ○ - *C. cavazzutii*.
Obr. 56. Mapa rozšíření druhů rodu *Choleva* v Turecku. ■ - *Ch. agilis*, ● - *Ch. bedeli*, ○ - *Ch. cavazzutii*.

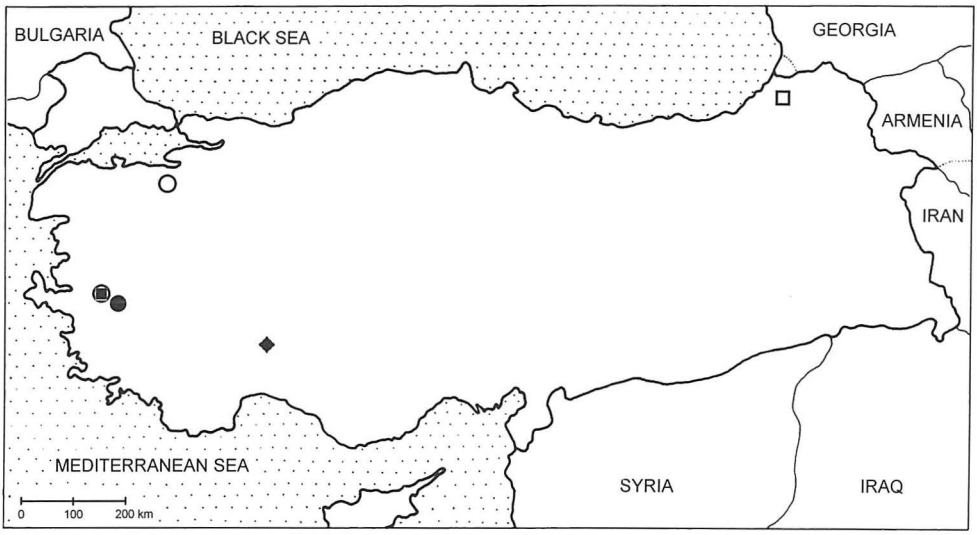


Fig. 57. Geographic distribution of species of *Choleva* in Turkey. ○ - *C. oblonga oblonga*, ● - *C. reitteri*, ◆ - *C.* cf. *cisteloides*, □ - *C. fencli*, ■ - *C. elongata*.
Obr. 57. Mapa rozšíření druhů rodu *Choleva* v Turecku. ○ - *Ch. oblonga oblonga*, ● - *Ch. reitteri*, ◆ - *Ch.* cf. *cisteloides*, □ - *Ch. fencli*, ■ - *Ch. elongata*.

SOUHRN

V předložené práci je uveden systematický přehled druhů rodu *Choleva* Latreille, 1796 v Turecku a popis tří nových druhů tohoto rodu z Turecka a Sýrie.

Ze skupiny „*reitteri*" (sensu Jeannel 1923) je popsán druh *Choleva* (*Choleva*) *mertliki* sp. n. z pohoří Göktepe Dağı z jižního Turecka a z pohoří Jabal an Nusayriyah ze severozápadní Sýrie, který se liší od blízce podobného druhu *Ch.* (*Ch.*) *reitteri* Petri, 1915 průměrně větší velikostí, tvarem apikální části aedeagu (obr. 8-9) a tvarem metatrochanteru, který je pouze slabě zahnutý s delší špicí (obr. 11-12). Samice se liší tvarem genitálního terga (obr. 5, 52) a tvarem bazálního okraje osmého ventritu, tzv. spiculum ventrale (obr. 4, 51). Tvarem genitálního terga a spiculum ventrale samice je *Ch. mertliki* sp. n. velice podobná druhu *Ch.* (*Ch.*) *oresitropha* Ganglbauer, 1896 (obr. 46-47), od kterého se zřetelně odlišuje větší velikostí a tvarem štítu.

Ze skupiny „*cisteloides*" (sensu Jeannel 1923) jsou popsány druhy *Ch.* (*Ch.*) *safranboluensis* sp. n. z okolí města Safranbolu ze severu, a *Ch.* (*Ch.*) *kostali* sp. n. z pohoří Göktepe Dağı a Bolkar Dağları z jihu Turecka. U druhu *Ch. safranboluensis* sp. n. je znám pouze samec, který se liší od nejblíže podobných druhů [*Ch.* (*Ch.*) *angustata* (Fabricius, 1781), *Ch.* (*Ch.*) *glauca* Britten, 1918 a *Ch.* (*Ch.*) *fencli* Růžička, 1993] tvarem a velikostí zubu na metatrochanteru (obr. 20) a tvarem apikální části aedeagu (obr. 16-17). *Ch. kostali* sp. n. se od ostatních druhů skupiny „*cisteloides*" (druhy bez zubu na spodním okraji metatrochanteru) odlišuje především rovným spodním okrajem metatrochanteru (obr. 27) a apikální částí aedeagu, který je z laterálního pohledu zřetelně zaoblený (obr. 26). Samice se liší od *Ch.* (*Ch.*) *cisteloides* (Frölich, 1799) a *Ch. glauca* zejména tvarem a velikostí desátého terga (obr. 30). Do typové série *Ch. kostali* sp. n. patří také exemplář, který mylně popsal Szymczakowski (1965b) jako do té doby neznámého samce druhu *Ch.* (*Ch.*) *angistrina* Reitter, 1887.

Pro systematické zařazení nově popsaných druhů jsou doplněny určovací klíče skupin druhů „*reitteri*" a „*oresitropha*" (Jeannel 1923, 1936) a modifikovaný klíč skupiny „*cisteloides*" (sensu Růžička 1993).

U ostatních druhů rodu *Choleva* jsou uvedeny nové údaje o jejich rozšíření v Turecku. Také jsou upřesněna stará literární data a u některých druhů připojeny taxonomické poznámky. *Ch. reitteri* je z Turecka hlášena poprvé a v práci uvedený nález druhu *Ch. cisteloides* je prvním jistým údajem z tohoto území. Známé rozšíření jednotlivých druhů v Turecku je znázorněno na mapách (obr. 54-57) a všechny druhy jsou uvedeny v systematickém přehledu (Tab. 1). Celkově je z Turecka dosud známo 18 druhů rodu *Choleva*, z toho je výskyt 1 druhu nejistý.