New and poorly known taxa of the genus *Cortodera* Mulsant, 1863 (Coleoptera, Cerambycidae) from South Europe and Near East

M.L. Danilevsky

A.N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect 33, Moscow 119071 Russia e-mail: danilevskyml@rambler.ru, danilevsky@cerambycidae.net

Key words: Coleoptera, Cerambycidae, Lepturinae, Cortodera, new taxa, new synonyms, new ranks, lectotype designations, Greece, Bulgaria, Turkey, Iraq. Abstract: A big Cortodera collection of Stanislav Kadlec (Národní Museum, Prague) is revised together with several more big collections; 20 new taxa are described and illustrated: C. humeralis moreensis ssp. n. is described from Greece. The lectotypes of C. semilivida Pic, 1892a and C. obscurans Pic, 1894 are designated. The connection between C. semilivida and C. orientalis Adlbauer, 1988 is supposed. The area of C. pumila meltemae Özdikmen, Mercan et Cihan, 2012 is widened to about whole Anatolia. C. wittmeri Holzschuh, 1995 is regarded to be distributed all over most part of Anatolia. C. w. wittmeri is recorded from 5 provinces: Niğde, Içel, Antalya, Konya and Aksaray. Four new subspecies are described: C. w. akshehirensis ssp. n. (Konya), C. w. sivasensis ssp. n. (Sivas), C. w. malatyaensis ssp. n. (Malatya) and C. w. gevashensis ssp. n. (Van). C. alpina rosinae Pic, 1902 (originally described as C. xanthoptera var. rosinae Pic, 1902) is accepted for Akcehir (Konya). C. flavimana (Waltl, 1838) is composed of 12 subspecies: C. f. flavimana (from Serbia and Hungary to NW Anatolia: Bolu, Zonguldak), C. f. schurmanni Sama, 1997, stat. n. (Greece, Peloponnesus), C. f. zoiai Pesarini & Sabbadini, 2009, stat. n. (north of Izmir prov., Turkey), C. f. rufipes Kraatz, 1876 (Izmir env., Turkey), C. f. inonuensis ssp. n. (northern most area of Kütahya and western most area of Eskisehir), C. f. angorensis ssp. n. (northern Ankara, Çankiri, Amasya), C. f. corallipes Pesarini & Sabbadini, 2009 (Trabzon, Erzurum, Gümüşhane, Artvin), C. f. karsensis ssp. n. (Kars, Ardagan), C. f. sergeyi ssp. n. (Tuncely), C. f. oezdikmeni ssp. n. (Kahramanmaras), C. f. torosensis ssp. n. (Içel, Adana), C. f. sultanensis ssp. n. (Afyon and Konya: south and west sides of Aksehir Lake along Sultandag Ridge). C. neali Danilevsky, 2004 is recorded for Iraq. C. colchica aksarayensis Özdikmen & Özbek, 2012, stat. nov. is downgraded to subspecies rank; its area is widened to about whole south Anatolia (Aksaray, Konya, Antalya, Muş Malatya, Içel, Sivas). Two new subspecies of C. colchica Reitter, 1890 from Turkey are described: C. c. erzurumensis ssp. n. (Erzurum), C. c. porsukensis ssp. n. (Eskişehir). C. c. aestiva Sama & Rapuzzi, 1999, **stat. n.** is proposed. Two new species similar to *C. colchica* are described: C. kadleci sp. n. (Erzincan), C. napolovi sp. n. (Mus, Buglan Geçidi). A female of C. discolor discolor Fairmaire, 1866 from near type locality is illustrated. Three new subspecies of C. discolor are described: C. d. ankarensis ssp. n. (Ankara), C. d. gumushanensis ssp. n. (Gümüşhane), C. d. bitlisiensis ssp. n. (Bitlis). C. alpina tatvanensis ssp. n. is described from Bitlis.

The current article is based on enormous *Cortodera* collection of Stanislav Kadlec containing many new taxa. A part of it was sent to me for study from Národní Museum, Prague. Several series were also received by me from Zoological Museum of Moscow University, as well as from collections of Sergey Murzin, Alexander Napolov and Hüseyin Özdikmen.

Abbreviations of collections:

AN - collection of A.Napolov, Riga

HO - collection of H.Özdikmen, Ankara

MD - authors's collection, Moscow

MNHP - Muséum National d'Histoire Naturelle, Paris

NMP - Národní Museum, Prague

SM - collection of S. Murzin, Moscow

ZMM - Zoological Museum of Moscow University

Cortodera humeralis moreensis ssp. n. Figs 1-3

Cortodera aspromontana, Sama, 2002: 21, part. (including southern Greece).

Cortodera humeralis aspromontana, Sama & Löbl, 2010: 122, part. (including Greece).

Type locality: Greece, Arkhadia, Peloponnesus, Vourvoura env., 37°19"N, 22°29'E, 900m.

The new taxon was traditionally fused with *C. h. aspromontana* G. Müller, 1948; body relatively longer; male elytra longer than wide in about 2.6 times, while in Italian *C. h. aspromontana* male elytra longer than wide in about 2.4 times; pronotal pubescence in males of *C. h. moreensis* **ssp. n.** very short, often indistinct; in females - longer and distinct; elytra with bigger and sparser punctation than in *C. h. aspromontana*; all three main forms of *C. humeralis* (Schaller, 1783) are available: elytra yellow, yellow with black suture, or black with yellow humeral spots; legs black with more or less wide yellow femora bases and lightened anterior tibiae; anterior femora often yellow with black apices. The specimens from Northern Greece have narrower elytra, than in specimens from Peloponnesus, but pronotum with distinct

pubescence and elytra with denser punctation; body length in males: 9.4-10.7mm, width: 2.8-3.0mm; body length in females: 9.0-10.7mm, width: 2.7-3.2mm.

Materials. Holotype, male, "Greece, Arkhadia, Peloponnesus, Vourvoura env., 37°19"N, 22°29'E, 900m, 22.5.2003, R.Hergovits leg. - MD; 15 paratypes; 6 males and 2 females with same labels - MD; 2 males, "Hellas - Graecia S, Peloponnes p., Arna [south Laconia, 36°52'40"N, 22°24'54"E], 13.5.2000, S. Kaluz leg." - SM; 1 female, "Hellas - Graecia S, Peloponnes, Pamon Mts. [37°07'N, 22°44'E], Geráki env., 16-17.5.2000, S. Kaluz leg." - SM; 3 males and 1 female, "Greece, Meteora, Koniskos env., 10.5.2014, Snizek leg." - MD, SM.

Distribution. Greece from Meteora to Peloponnesus.

Cortodera semilivida Pic, 1892 Figs 4-6

Cortodera semilivida Pic, 1892a: cxciii - "Syria"; 1893: 414 - "Haute-Syrie"; Sama & Löbl, 2010: 123, part. - Syria, Turkey.

Cortodera semilivida var. diversipes Pic, 1898b: 49 - "Akbès" (unavailable name). ? Cortodera humeralis orientalis Adlbauer, 1988: 264 - "Amanusgebirge, Nurdagi Geçidi E Osmanie"; Sama & Löbl, 2010: 123.

? Cortodera orientalis, Sama, 2002: 21; Danilevsky, 2010: 224. Cortodera semilivida, Sama & Löbl, 2010: 123, part. - "A: SY TR"

Type locality: Hatay prov. in south-east Turkey.

The syntypes of *C. semilivida* Pic, 1892a were regarded as unknown. According to G.Tavakilian (personal message, 2014) only two pin wholes are observed now at the bottom label "semilivida" in Pic's collection. The "type" (Fig. 4) of *Cortodera semilivida* var. diversipes Pic, 1898b (equiped with label "type" - Fig. 5) was just discovered by me in Plavilstshikov's collection - ZMM. Besides 5 specimens (Fig. 6: 3 males, 1 female and 1 specimen without abdomen) of "*Cortodera semilivida* var. diversipes Pic, 1898b" are preserved in Pic's collection in Museum d'Histoire Naturelle, Paris. Not a single one has a label "type".

The original description of the species was based on two specimens ("8-9 mil"): a female was described first: "la coloration des pattes, chez la femmele que je possède, est entièrement noire",

then a male ("J'attribue à cette espèce une forme mâle"), wich had same characters (bicolored legs), that were observed now in the specimen from Plavilstshikov's collection. That "forme mâle" of the original description was later described as *Cortodera semilivida* var. *diversipes* Pic, 1898b (without indication of materials, but from same area as the typical *semilivida*, and so the name is unavailable). The publication (Sama & Löbl, 2010: 123) of the name "*diversipes* Pic" as a synonym of "*Cortodera schurmanni* Sama, 1997" from Greece was just a nonsense. I've declared that position as "lapsus calami", but the name C. *diversipes* Pic, 1898b was wrongly published by me (Danilevsky, 2010: 225) as a valid name (= *schurmanni* Sama, 1997).

Most probably a male from Plavilstshikov's collection was mentioned in the original description and could be designated here as a lectotype of *Cortodera semilivida* Pic, 1892a. Same specimen could be used as a "type" of *C. semilivida* var. *diversipes* Pic. A female from the type series with all legs black is unknown, but could be accepted as a paralectotype when available.

The species is similar to *C. humeralis* (Schaller, 1783) and according to the original description: "doit être au moins reconnue comme variété remarquable de cette espèce".

C. humeralis orientalis Adlbauer, 1988 (Figs 7-9) was also described from Amanus Mountains. The taxon was later accepted by Sama (2002) as a species: "C. orientalis", then the status of the name was downgraded by him to the subspecies level (Sama & Löbl, 2010: 123) and same year upgraded once more by me (Danilevsky, 2010). C. orientalis has just same color of body, legs and antennae as C. semilivida, but seems to be a different species because of much wider thorax (though similarly punctated), longer apical joints of maxillary palpi, sparser elytral punctation, especially near scutellum; besides C. orientalis seems to be usually much bigger. Still, better series from different localities of Amanus Mountains could show the synonymy of both names.

Sometimes specimens of *C. pumila meltemae* Özdikmen, Mercan, and Cihan, 2012 are also very similar to *C. semilivida*. *C. p. meltemae* has just same size, that all known *C. semilivida* and just same shape of prothorax, but apical joints of palpi are usually distinctly shorter, glabrous line of pronotum indistinct or hardly

visible, lobes of 3rd tarsi joints shorter.

The final decision on the relations between *C. semilivida*, *C. orientalis* and *C. p. meltemae* needs better study of *Cortodera* specimens from Amanus Mountains.

According to the studied specimens the body length in males: 8.5-9.7 mm, in female: 9.7 mm.

Distribution. Hatay province in Turkey. The records for Syria need confirmation. According to Adlbauer (1988) *C. orientalis* is connected with *Quercus*.

Materials (6 specimens, 8.0-9.7mm). Male (Fig. 4 - 9.5 mm), "type" of Cortodera semilivida var. diversipes Pic, 1898b, lectotype [present designation] of Cortodera semilivida Pic, 1892a with 6 labels: 1) type, 2) [small white square], 3) Akbés, 4) Syrie, 5) Cortodera semilivida var. diversipes Pic, 6) semilivida Pic - ZMM; 1 male (Fig. 5 - 1st specimen - 8.5 mm) with 4 labels: 1) Syrie, Amanus, C.D. 1891, 2) [pink circle], 3) semilivida Pic, v. diversipes Pic. 4) Museum Paris, Coll. M. Pic - MNHP; 1 specimen without abdomen (Fig. 5 - 2nd specimen - 8.0 mm) with 3 labels: 1) Syrie, 2) v. diversipes Pic, 3) Museum Paris, Coll. M. Pic - MNHP; 1 male (Fig. 5 - 3rd specimen - 9.0 mm) with 4 labels: 1) Syrie, Amanus, C.D. 1891, 2) [pink circle], 3) v. diversipes Pic, 4) Museum Paris, Coll. M. Pic - MNHP; 1 female (Fig. 5 - 4th specimen - 9.7 mm) with 4 labels: 1) [small white square], 2) Syrié, 3) v. diversipes 4) Museum Paris, Coll. M. Pic - MNHP; 1 male (Fig. 5 - 5th specimen -9.7 mm) with 3 labels: 1) Syrie, Amanus, C.D. 1891; 2) hardly readable; 3) Museum Paris, Coll. M. Pic - MNHP.

C. orientalis Adlbauer, 1988: 1 male, 1 female with label: Tr, Adana vill., Hasanbeyli env., Nurdagi Geç., 17.5.2002, Košťál and Voříšek leg. - MD; 1 male with label: Turkey (prov. Adana), Hasanbeyli env., pass, 37°07′N, 36°34′E, 19-25.05.2001, P. Bialooki leg. - MD.

Cortodera pumila meltemae Özdikmen, Mercan & Cihan, 2012 Figs 10-13

Cortodera pumila meltemae Özdikmen, Mercan & Cihan, 2012: 746 - Ankara prov.: Kızılcahamam, Güvem; Aksaray, entry of Nevşehir-Aksaray; Ankara prov.: Kızılcahamam, Soğuksu National Park; Bolu prov.: Abant.

Type locality: Ankara prov.: Kızılcahamam, Güvem.

The taxon was described on the base of 10 specimens from 4 localities. Kadlec collection [NMP] contains 48 specimens from many new localities. Big series in good condition allow to propose a new morphological diagnosis of *C. p. meltemae*.

Elytral suture in all specimens is really never darkened, as it was noted in the original description, but it is also the most usual condition in many populations of Caucasian C. pumila pumila. Antennae nearly always pale, but sometimes totally dark; elytra are always uniformly vellow-brown, darker or lighter, but never with darkened areas; suture is also always pale; shape of apical joints of maxillary palpi more or less elongated, or a little widened, triangular, often a little different inside one population; thoracic shape and pubescence also rather variable; thorax wider or longer, pronotal setae sometimes very dense and usually arranged in two rows; legs usually bicolored, very rare totally pale (one female from Bolu); the darkest available specimen (male from Bolu) has about totally black middle and hind legs (with only femora bases reddish), anterior legs pale with black tarsi and black apices of femora and tibiae; usually anterior legs totally pale, while middle and hind legs black with reddish basal part of all femora; often all legs reddish with black apices of hind femora; abdomen usually black, or with reddish posterior segments, especially in females; body length in males: 7.9-10.0mm; body length in females: 8.5-10.8mm.

Materials. 7 males, 1 female, E Turkey, Sarikamis, 80 km NE Horasan, 4118N, 4229E, 25.6.1999, M.Rejzek leg. - NMP; 2 males, 1 female, TR, prov. Zonguldak, Safranbolu, 1000m, 4-5.6.1996, V. Švihla leg. - NMP; 8 males, 10 females, TR, Bolu prov., Abant gölü, 1200m, 4.6.1996, P.Zahradnik leg. - NMP; 1 female, Kizilcahamam, Juni 1973, L.Steiner leg. - NMP; 4 males, 2 females, TR, vil. Sivas, 1800m, Kurbagalibeli (N Zara), 4.6.1998, S. Kadlec leg. - NMP; 3

males, 2 females, Turcia C, Eskişehir, Porsuk bajari, 22.5.1998, M.Snyek leg. - NMP; 3 males, NW Turkey, Güvem SW Çerkeş (1080m), 4039N, 3243E, 31.V.2001, P. Kabátek leg. - NMP; 3 males, same data, S. Kadlec leg. - NMP; 1 female, same data, M.Rejzek leg. - NMP.

Distribution. North and Central Turkey: from Bolu, Zonguldak and Ankara to Sivash and Kars; known from Aksaray.

Cortodera wittmeri Holzschuh, 1995 Figs 14-39; Map 1

Cortodera wittmeri Holzschuh, 1995: 9 - "Turkey, Ulukişla" (37°32'56"N, 34°29'5"E); Özdikmen, 2014: 311 - "known only from the type locality".

Type locality: Turkey, Niğde prov., Ulukişla (37°32'56"N, 34°29'5"E).

The species seems to be connected with "colchica-group" because of long erect pronotal male pubescence and presence of several forms with red abdomen, legs and antennae. It is characterized by very stable elytral design: elytra can be totally black or totally light-brown without any peculiar design typical for *C. colchica* Reitter, 1890.

Head transverse, with strongly angulated temples diverging posteriorly; apical joints of maxillary palpi more or less triangular, often elongated; male antennae protruding beyond 0.6 of elytral length or reaching apical elytral forth, in females a little surpassing elytral middle or about as long as in males; 2nd antennal joint short, about as long as wide; 1st, 3rd, 4th and 5th joints can be about equal in length or 5th joint is the longest, 1st and 4th about equal and 3rd distinctly shorter; antennae usually totally black, or with pale several basal joints, or totally pale-brown. Prothorax transverse, slightly widened near middle; in males about 1.2 times wider at base than long; in females - about 1.3 times; in males about 1.6 times wider posteriorly than anteriorly; in females - about 1.5 times; pronotal punctation small and regular, interspaces near middle are often bigger than dots; smooth central elongated area usually relatively wide and shining; pronotal pubescence pale in specimens with brown elytra, or black in specimens with black elytra, erect and long in

males or shorter and recumbent in females, with scattered erect setae: scutellum black, shining. Elytra light-brown or black both in males and in females; in males about 2 times longer than wide, gradually tapering posteriorly, in females - usually about 1.9.times longer than wide, less tapering posteriorly, often nearly parallelsided; but sometimes female elytra can be more elongated about 2.2 times longer than wide; elytral punctation small and regular, punctures near suture a little smalle than along elytral middle; elytral pubescence semierect, much shorter in females: several erect setae can be near scutellum in males; black elytra with black pubescence, pale elytra with pale pubescence. Legs usually totally black, or anterior tibiae more or less lightened, or anterior tibiae and femora partly reddishbrown, or anterior tibiae and femora totally reddish-brown, or all tibiae pale, anterior femora pale, other femora with pale bases, tarsi also can be partly pale. Abdomen totally black, or black with reddish hind segments or totally reddish-brown; abdominal pubescence mixed of scattered erect and recumbent pale setae; pygidium in males slightly concave, never deeply emarginated, postpygidium rounded; last abdominal tergite in females and last abdominal sternites in both sexes widely rounded; body length in males: 7.0-10.7mm, width: 2.3-3.6mm; body legth in females: 7.3-12.0mm, width: 2.6-3.9mm.

Distribution. Many populations are known in Anatolia from Akşehir province to Van, nothwards to Sivash and southwards to Antalya. Three of them will be described here as new subspecies.

Cortodera wittmeri wittmeri Holzschuh, 1995 Figs 14-17; Map 1: 1-10

Cortodera wittmeri Holzschuh, 1995: 9 - "Turkey, Ulukişla".

Type locality: Turkey, Niğde prov., Ulukişla (37°32'56"N, 34°29'5"E).

The original description was based on a single male. Many newly studied series allow to propose several new characters.

Elytra brown (only one male from Antalya has black elytra, another male from the type locality with bright-yellow elytra); antennae, legs and abdomen are often totally black, but anterior

tibiae usually lightened; the holotype (Holzschuh, 1995) with reddish-brown abdomen ("ziemlich hell rotbraun") partly darkened anteriorly; one male from the type locality with totally red anterior legs (Fig. 14); one female from Antalya (Fig. 17) with brownish tibiae and lightened bases of all femora and only that one female has pale last three abdominal sternites; elytral bases in males with numerous erect setae; apical joints of maxillary palpi from very short, triangular to more or less elongated; body length in males: 7.0-10.7mm, width: 2.3-3.5mm; body legth in females: 7.3-12.0mm, width: 2.6-3.9mm.

Materials. 1 male with label: "Niğde, Ulukişla, 1400m, 23.06.1997" - HO; 2 males and 5 females with label: Antalva prov. 2008 G-25" [Akseki-Güzelsu, 36°59'N, 31°50'E, 1154m, 9.6.2008, H.Özdikmen leg.] - HO; 2 females with label: "TR. Antalya, Teke Gecidi, 14.05.2006, 1237m, N 37 14 164, E 31 46 295, Özdikmen 06.G11" -HO; 1 female with label: "TR. Antalya, Alanya - Taşkent, Karapinar k. cikisi 16.05.2006, 1100m, N 36 36 966, E 32 24 636, Özdikmen 06.G17" - HO; 1 female (without head) with label: "Konya prov.: 2008 G-38" [between Hadim and Bozkir, 50 km to Bozkir, 36°58'N, 32°24'E, 1648m, 12.6.2008, H.Özdikmen leg.] - HO; 2 females with label: "TR. Seydisehir, Cavus köyü, 13.05.2006, 1186m, N 37 37 812, E 31 55 955, Özdikmen 06.G03" - HO; 1 male with label: "Tavşançali, Kulu, Konya, Türkye, 17.05.1997, 1000m, Özdikmen 1" - HO; 1 female with label: "Kirobasi çikişi 2km, Içel, Türkye, 01.06.2001, 1335m, Özdikmen 01.31" - HO; 1 male and 1 female with label: "Nevşehir - Aksaray girişi, Aksaray, Türkye, 20.05.1997, Özdikmen 19" - HO; 1 male, Turc. c., Bademli Gecidi, 31.6.1996, Z. Švec leg. - NMP.

Distribution. Five provinces of south and central Anatolia; Niğde prov.: Ulukişla (37°32'56"N, 34°29'5"E) environs; Içel prov.: Kirobasi (36°43'15"N, 33°54'20"E) environs, Antalya prov: Karapinar environs, 36°36'58"C, 32°24'38"B; Teke Geçidi, 37°14'10"N, 31°46'18"E; Bademli Geçidi; between Akseki and Güzelsu, 36°59'N, 31°50'E; Konya prov.: between Hadim and Bozkır, 36°58'N, 32°24'E; Seydişehir, Çavuş köyü, 37°37'49"N, 31°55'58"E; Tavşançali (38°56'N, 33°00'E;), Kulu; Aksaray prov.: between Aksaray and Nevşehir (38°32'N, 34°23'E).

Cortodera wittmeri akshehirensis ssp. n. Figs 18-29; Map 1: 11

Type locality: Turkey, Konya, Yesilkoy (38°19'N, 31°36'E) environs, about 17km SE Akşehir.

The subspecies is characterised by large individual variability; about a half of available specimens with black elytra (males and females), other males and females with uniformly light-brown or yellowish elytra; 1 male and 3 females with black elytra have totally black legs and totally black abdomen; 4 females with yellow elytra also have all legs black and black abdomen; usually anterior tibiae yellowish while abdomen totally black (4 males and 5 females with yellow elytra); other males with black elytra have totally or partly red anterior legs and red abdominal apex; other females with black (or slightly brownish) elytra have totally or partly red abdomen and more or less red legs (anterior legs, basal parts of all femora, anterior tibiae or all tibiae); one male with yellow elytra with totally red anterior legs and red abdomen apex; other males with yellow elytra have totally or partly red abdomen and more or less red legs (anterior legs, basal parts of all femora, anterior tibiae or all tibiae); one female with yellow elytra has red anterior legs, red bases of middle and hind femora and black abdomen; 2 females with yellow elytra, totally red abdomen and totally reddish antennae have all legs red with black apices of middle and hind tibiae; males with vellow elvtra also can have reddish antennae as well as females with black elytra; sometimes antennae strongly bicolored. Apical joints of maxillary palpi from short to slightly elongated, in males usually more triangular; elytral bases in males usually with a few erect setae, but sometimes without a single; shape of adeagus and parameres is a little variable and sometimes is very similar to published for the nominative subspecies in the original description; bdy length in males: 8.4-10.5mm, width: 2.7-3.6mm; body length in females: 7.5-10.5mm, width: 2.5-3.6mm.

Materials. Holotype, male with label: "TR (17km SE Akşehir), Yesilkoy env., 18.5.1998, S. Kadlec lgt." - NMP. 29 paratypes (11 males and 18 females) with same label - NMP.

Distribution. Only one locality is definitely known in South

Anatolia: Konya, Yesilkoy (38°19'N, 31°36'E) environs - 17km SE Akşehir.

Remarks. C. xanthoptera var. rosinae Pic, 1902: 8 ("Anatolie: Ak-Chehir") was described from about same area as the new subspecies without any information on number of specimens in the type series, size or sex. A single female (Fig. 81: 9.0 mm) identified in Pic's collection as "var. rosinae" [so its new label "holotype" could be adequate] does not look close to C. wittmeri akshehirensis ssp. nov. The specimen has 7 labels (Fig. 82): 1) "Anatolien, Ak-Chehir, 1900, Korb.", 2) "201", 3) "sp?", 4) "type", 5) "v. Rosinae Pic", 6) [red] HOLOTYPE, 7) Museum Paris, Coll. M. Pic. The body of the type is relatively longer than in females of C. w. akshehirensis ssp. nov.. elytral punctation smaller, temples smaller and less angulated. I attribute to same taxon a series (3 specimes - ZMM) of old females (7.5-9.0mm) from "Konya" with yellow elytra identified by N.N. Plavilstshikov as "C. umbripennis ab. xanthoptera Pic": one was collected by "Korb" - same collector that was mentioned in the original description of "var. rosinae Pic". I preliminary leave the traditional position of the name inside C. alpina and regard the taxon as a local subspecies: C. alpina rosinae Pic, 1902.

Materials of "C. umbripennis ab. xanthoptera Pic" from Plavilstshikov's collection: 1 female with 2 labels: 1) upper side: "Anatolia, Konia", under-side: "Korb", 2) "C. umbripennis ab. xanthoptera Pic, N.Plavilstshikov det. VI.915" - ZMM; 1 female with 3 labels: 1) "Asia Minor, Konia, v.Bodemeyer", 2) Cortodera xanthoptera, det. E. Reitter, 3) "C. umbripennis ab. xanthoptera Pic, N.Plavilstshikov det. VI.915" - ZMM; 1 female, with 2 labels: 1) "Asia Minor, Konia, v.Bodemeyer", 2) Cortodera xanthoptera Ganglb., Boidylla - ZMM;

Cortodera wittmeri sivasensis ssp. n. Figs 30-33; Map 1: 12-13

Type locality: Turkey, Sivas, Karabayir Geçidi, 1925m.

Available specimens are rather stable in color: body black, elytra light-brown, legs black with yellowish anterior tibiae (males and a female) and sometimes yellowish middle tibiae (in two males),

or hind tibiae also slightly yellowish (one male); antennae black or slightly lightened apically or basally; elytral bases in males with a few erect setae; elytral punctation along suture distinctly bigger than in the nominative subspecies or in *C. w. akshehirensis* **ssp. n.**; apical joints of maxillary palpi in males wide, triangular, or slightly elongated in females; body length in males: 7.2-10.5mm, width: 2.3-3.3mm; body length in females: 9.2-9.5mm, width: 3.2-3.3mm.

Materials. Holotype, male with label: "TR - vil. Sivas, Karabayir Geçidi, 1925m, 12.6.1999, S. Kadlec lgt." - NMP; 5 paratypes (4 males and 1 female) with same label - NMP; 2 paratypes (1 male and 1 female) each with 2 labels: 1) "Kaukasus, Olty, E. Koenig", 2) "Cortodera umbripennis v. xanthoptera?, N. Plavilstshikov det." - ZMM.

Distribution. Two localities are known in North Anatolia: Sivas, Karabayir Geçidi, 40°9'59"N, 37°52'13"E, 1925m; Erzurum, Oltu environs. In Sivas the taxon is sympatric with *Cortodera colchica aksarayensis* Özdikmen & Özbek, 2012,

Cortodera wittmeri malatyaensis ssp. n. Figs 34-35; Map 1: 14

Type locality: Turkey, 30km SW Malatya, SE env. of Eskiköy vill., 1570-1620m.

Elytra yellow; antennae, legs and abdomen usually black, anterior tibiae slightly lightened; one female with totally orange-yellow abdomen and bicolored legs: anterior femora reddish with black apices, other femora with reddish basal halves; elytral bases in males without erect setae; apical joints of maxillary palpi elongated; body length in males: 8.0-9.0mm, width: 2.8-2.83 mm; body legth in females: 7.7-9.2 mm, width: 2.6-3.0 mm.

Materials. Holotype, male with label: "Turkey E (Malatya), 30km SW Malatya, SE env. of Eskiköy vill., 1570-1620m, 30.5.2011, A.Napolov & I.Roma leg." - MD; 5 paratypes; 2 males, 3 females with same label - MD and AN.

Distribution. East Turkey, southern Malatya.

Cortodera wittmeri gevashensis ssp. n. Figs 36-39; Map 1: 15

Type locality: Turkey, Van province at the south-east bank of Van Lake, Gevaş environs, 1800m.

Very close to the previous taxon, but seems to be more stable in color: body black, elytra light-brown, legs always black with yellowish anterior tibiae (males and a female); elytral bases in males without erect setae; elytral punctation along suture about same as in *C. w. sivasensis* **ssp. n.;** apical joints of maxillary palpi a little longer in males and in females; one available female is abnormally big with longer elytra, about 2.2 times longer than basal width, angulated apically; the shape of male genitals is about same; body length in males: 9.2-9.8mm, width: 3.0-3.3mm; body length in females: 8.1-12.0mm, width: 2.6-3.9mm.

Materials. Holotype, male with label: "TR - Anatolia or., Gevaş env., 12.6.1992, 1800m, S. Kadlec lgt." - NMP; 4 paratypes (1 male and 3 females) with same label - NMP.

Distribution. Only one locality is known in South-East Anatolia at the south-east bank of Van Lake, Van province, Gevaş environs.

Cortodera flavimana (Waltl, 1838) Figs 40-59; Map 2

Leptura villosa var. flavimana Waltl, 1838: 471 - Turkey [Istambul env.].

Grammoptera rufipes Kraatz, 1876: 344 - "wohl bei Smyrna".

Cortodera flavimana var. fulvipes Reitter, 1890: 245 - "Kleinasien, Türkei" - unavailable.

Cortodera flavimana var. brachialis Ganglbauer, 1897: 52 - "Angora" - unavailable.

Cortodera flavimana var. limbata Ganglbauer, 1897: 52 - "Angora" - unavailable.

Cortodera flavimana var. rufipes, Ganglbauer, 1897: 53.

Cortodera flavimana var. flavipennis Ganglbauer, 1897: 53 - "Angora" - unavailable.

Cortodera flavimana var. variipes Ganglbauer, 1897: 53 - "Angora" - unavailable. Cortodera flavimana brachialis, Demelt, 1967: 61 - "Peloponnes".

Cortodera schurmanni Sama, 1997: 107 - "apparemment propre au Péloponnèse".

Cortodera zoiai Pesarini & Sabbadini, 2009: 16 - "4 km NE Kozak (vil. Izmir)".

Cortodera flavimana corallipes Pesarini & Sabbadini, 2009: 17 - "Askale (vil. Erzurum, ...)" - type locality; "Vavuk Geçidi (vil. Gümüşhane, ...)"; "Zigana Geçidi (vil. Trabzon, ...)"; "dint. Sud di Karagöl, 1400 m (vil. Ankara, ...)"; "tra Çubuk e Karagöl, 1360m (vil. Ankara, ...)".

Cortodera schurmanni, Sama & Löbl, 2010: 123, part. ("= diversipes Pic") - Greece. Cortodera diversipes, Danilevsky, 2010: 225, part. ("= schurmanni Sama, 1997b") - Greece.

Cortodera flavimana, Danilevsky, 2012a: 703-704 (type locality - Istambul env.).

Type locality: Turkey, Istambul environs.

Cortodera flavimana (published as Leptura villosa var. flavimana) was described in the article devoted to Turkish Coleoptera, but a remark was in the original description: "Auch in Ungarn". The original description was most probably based on a single specimen, as only one size published. So, Hungary could be excluded from the type area of the taxon. All Turkish taxa mentioned in the article were collected near "Konstantinopel", so the type locality of Cortodera flavimana can be accepted (Danilevsky, 2012a) as Istambul environs (see a typical male of C. f. flavimana from European Turkey in www.cerambycidae.net - "Gallery").

The species consisted up to now of 5 subspecies:

C. f. flavimana Waltl, 1838 - NW Anatolia and Europe without Peloponnesus (Map 2: 1-16).

C. f. schurmanni Sama, 1997, stat. n. - Greece, Peloponnesus (Map 2: 17-18).

C. f. rufipes Kraatz, 1876 - Turkey, Izmir env. (Map 2: 23-24).

C. f. corallipes Pesarini & Sabbadini, 2009 - Turkey, Erzurum prov. (Map 2: 30-35).

C. f. zoiai Pesarini & Sabbadini, 2009, **stat. n. -** Turkey, north of Izmir prov. (Map 2: 22).

Cortodera flavimana var. fulvipes, Reitter, 1890e ["Kleinasien"] was introduced by Reitter as "v. fulvipes Kr." - so, most probably, it was wrong subsequent spelling of var. rufipes Kraatz, 1876b, and must be regarded as unavailable (Danilevsky, 2012a). The name by Reitter (1890) was not included by Ganglbauer (1897) in the number of flavimana variations.

All variations of *Cortodera flavimana* described by Ganglbauer (1897) were proposed for a single population ("Angora"): *brachialis, flavipennis, limbata, variipes*; so Ganglbauer expressly used infrasubspecific rank (Article 45.6.4 of ICZN) to each

one, and all his names are unavailable (Danilevsky, 2012a), though all were published as available by Sama & Löbl (2010: 122). "Cortodera flavimana ssp. brachialis Ganglbauer, 1897" was sometimes published as valid for Greece (Demelt, 1967; Althoff, Danilevsky, 1997) [If the name is published as valid before 1931, it becomes available - Art. 12.1].

All populations from Europe (without Peloponnesus) are here regarded as *C. f. flavimana* (Waltl, 1838).

- C. flavimana rufipes Kraatz, 1876 (Map 2: 23-24) was described from "Smirna" on the base of all legs red, so the name is valid for a local subspecies. Such form seems to be unknown in Europe.
- C. flavimana schurmanni Sama, 1997, **stat. n.** is a melanic Peloponnesus subspecies (Map 2: 17-18). The genital structures are inside species variations of C. flavimana.
- C. flavimana zoiai Pesarini & Sabbadini, 2009, **stat. nov.** (north of Izmir vil., 4km NE Kozak, about 39°15'N, 27°06'E) described as a species with many specimens of all legs red is downgrated here to subspecies rank. The type locality (Map 2: 22) is situated just in between C. flavimana rufipes and nominative subspecies.
- C. flavimana corallipes Pesarini & Sabbadini, 2009 (Map 2: 30-35) was also described on the base of all legs red (type - Ascale in Erzurum) includes (according to the paratype series) a lot of populations with rather variable color characters from very big area and definitely consists of many different subspecies not described yet. Several more populations from north-east Anatolia are identified here as C. f. corallipes Pesarini & Sabbadini, 2009. One is situated in about 35km north-eastwards type locality: 5 males, 8 females, Erzurum, Pašaki [40°13'N, 40°49'E], 27.5.-7.6.1916 - ZMM; another one is a little further (60km) in same direction: 16 males and 4 females, East Turkey, Ispir env., Yukariozbag vill., 1250-1780m, 40.4665N, 40.9602E, 24.V.-3.VI.2012, J.Hron, S.Murzin leg." - SM. The third is very close to the south Georgian border: 1 male and 3 females, East Turkey, Artvin, hotel Laset, 9 km E Savsat, 1600m, 41.2364N, 42.42987E, 27-28.V.2012, J.Hron, S.Murzin leg." - SM. It is only 20km southwards state border, so the population must penetrate to Georgia. One male and one female from the upper level

of Chorokh River (3-4.6.1916, A.Vinokurov - ZMM) could also belong to the population which penetrates to Georgia.

Body length of available specimens in males: 9.0-10,5 mm, in females: 8,8-11,0 mm.

Several my photos of aedeagus and parameres from different subspecies demonstrate rather different patterns, but it could be connected with individual variations and could not be used for the subspecies identification.

Cortodera flavimana flavimana (Waltl, 1838) Fig. 40; Map 2: 1-16

Type locality: Turkey, Istambul environs.

The nominative subspecies is rather stable in color; usually only two forms are represented in each population: with yellow elytra and with black elytra; anterior legs red, other legs black; not a single specimens among available materials (100ex.) has red or partly red middle or hind legs; basal antennal joints black or reddish; abdominal apex black or red; body length of available specimens in males: 9.0-10,5 mm, in females: 8,8-11,0 mm.

Materials. Specimens from many populations were studied, including specimens from Greece: 2 males, 9 females, Pindos Mts., Kastanea: 5.5.2000, 1-19.5.2002 S. Kalúz and I. Rychlík leg. - SM; Turkey: 1 male, Europ. Turkey, Poyrali 7km E Pinarhisar, 4138N, 2736E, 5.5.2001, S. Kadlec leg. - NMP; 3 males, Zonguldak, Karadere - Egerci, 22-26.6.2003, Antonini leg. - SM; 2 males, 4 females, Abant lake, 21.5.1994, R.Hergovits leg. - MD; Bulgaria: 1 male, Arkutino, 24.6.1984, S. Kadlec and J.Vořišek leg. - NMP; 2 males, 2 females, Slanchev Bryag, Elenite, 12.5.1999, G.Stering leg. - MD; 2 males, 2 females. Sveti Vlas, 30.4-7.5.2013, G.Demidov leg. - MD; 1 female, Lozenetz env., 9-21.6.2003, J.Velc leg. - SM; 1 female, Byala Voda, 42°11'N, 27°29'E, 23.6.2012, T.Ljubomirov leg. - MD; 4 males, Zaimtchevo, 42°55'N, 27°19'E, 16.5.2012, T.Ljubomirov leg. - MD; 3 males, 6 females, Rakovo, 30.6.1984, S. Kadlec and J.Vořišek leg. - NMP; 26 males, 27 females, Harmanli, 9-10.5.1985, S. Kadlec and J.Vořišek leg. - NMP and MD; 1 male, 2 females, Bačkovo, 1937, Dr. Jureček leg. - NMP; 1 female, Vitosha

Mt., 6.6.2009, T.Ljubomirov leg. - MD; 1 male, 1 female, Petrič, Dr. Purkyně leg. - NMP; 1 male, Pirin, V.VI.29, Mařan et Táborský leg. - NMP; 1 female, Kresensko def., VI. Mař. Tab. - NMP; 1 female, Bessaparski Hulmove hills, 42°09'N, 24°20'E, 5.5.2007, T.Ljubomirov leg. - MD; 3 males, 1 female, Zeitinburun, Dr. Purkyně leg. - NMP; **Hungary:** 3 males, 3 females, Gyula, 21.5.1996; 4 males, Kisszállás, VI.1980, G. Rácz leg. - MD; **Macedonia:** 1 male, Mazedonien, Bitola, 22.5.1969, Dr. Schurmann leg. - NMP.

Distribution. The nominative subspecis is known from North-West Turkey including European part to about Zonguldak prov., Bulgaria, Hungary, Romania, Austria, northern and central Greece, Macedonia, Serbia.

Seven new subspecies are described bellow.

Cortodera flavimana inonuensis ssp. n. Figs 41-42; Map 2: 19-21

Cortodera flavimana ab. olympica Jurecek, 1937: 69 (unavailable) - "Olymp bei Brussa in Kleinasien".

Cortodera flavimana ab. picea Jurecek, 1937: 69 (unavailable) - "Olymp bei Brussa in Kleinasien".

Cortodera flavimana ab. mixta Jurecek, 1937: 69 (unavailable)- "Olymp bei Brussa in Kleinasien".

Type locality: Turkey, Eskişehir, Inonu [39°48'46"N, 30°08'49"E].

The taxon seems to be intermediate between *C. f. flavimana* known nothwards closer to Black Sea coast and *C. f. zoiai* Pesarini & Sabbadini, 2009 described from the north of Izmir province. New taxon differs from the nominative subspecies by the presence of specimens with bicolored or totally red middle and hind legs. Elytra in males and females totally black or yellow with black suture. Male elytra without erect setae. Bicolored middle and hind legs have middle and hind tibiae red with black apices; middle femora red with black apices; hind femora with red basal half and black apical half; antennae usually black with red basal joints or sometimes totally black; abdominal apex black or red. Legs of several specimens are colored similar to the nominative subspecies: anterior legs red, others

- black; body length in males: 9.2-10.2mm, width: 2.8-3.3mm;; body length in females: 9.4-11.2mm, width: 3.0-3.7mm.

Materials. Holotype, male with 2 labels: 1) "Turchia, Eskişehir, Inonu [39°48'46"N, 30°08'49"E], 26.5.1981, Leg. G.Sama"; 2) "Cortodera flavimana Waltl / G.Sama det." - MD; 18 paratypes; 1 male with same locality label - SM; 1 female with label: "TR vill. Kütahya, 10km NE of Domaniç, Uludağ (pass), 23.8.2002, Josef Mertlik lgt. - NMP; 7 males, 2 females, "Olymp. [now Uludağ] Bithyn. Asia min. V. Dr. Jureček 31" - ZMM; 3 males, 1 female, "Olymp. Brussa, Asia min. 1931, Dr. Jureček" (1 male designated as "cotypus" of *flavimana* ab. *picea* Jureček, another male with a second label: "Cortodera flavimana ab. olympica m.") - ZMM; 3 females, "Brussa V. Asia min. Dr. Jureček 31" - ZMM.

Distribution. North-west Turkey; the northern most area of Kütahya province and the western most area of Eskişehir province.

Cortodera flavimana angorensis ssp. n. Figs 43-44; Map 2: 25-29

Cortodera flavimana corallipes Pesarini & Sabbadini, 2009: 17, part. - "Askale (vil. Erzurum, ...)" - type locality; "Vavuk Geçidi (vil. Gümüşhane, ...)"; "Zigana Geçidi (vil. Trabzon, ...)"; "dint. Sud di Karagöl, 1400 m (vil. Ankara, ...)"; "tra Çubuk e Karagöl, 1360m (vil. Ankara, ...)".

Type locality: Turkey, Çamlidere northwards Ankara.

The taxon is close to *C. f. corallipes* Pesarini & Sabbadini, 2009 because of all legs red, though a big part *C. f. corallipes* specimens has middle and hind legs black, while only one female (Köroğlu Dağlari) of *C. f. angorensis* ssp. n. has middle and hind legs black. Two populations of the new subspecies from Ankara prov. were included in *C. f. corallipes* in the original description. *C. f. angorensis* ssp. n. differs from *C. f. corallipes* by red antennae, while all available *C. f. corallipes* have black antennae (or sometimes partly black with reddish basal joints); elytra in *C. f. angorensis* ssp. n. are yellow with black suture just as in all (17 males and 7 females from Erzurum and Artvin) available specimens of *C. f. corallipes*; pronotum and elytra in *C. f. angorensis* ssp. n. are usually covered with numerous long erect setae similar to *C. f. corallipes* (never in *C.*

f. flavimana); glabrous pronotal longitudinal line in C. f. angorensis ssp. n. relatively wide; abdominal apex red or black, while in all available specimens of C. f. corallipes abdominal apex black; body length in males: 7.9-9.2mm, width: 2.6-2.9mm; body length in females: 7.3-9.4mm, width: 2.5-3.1mm.

Materials. Holotype, male with label: "TR Anatolia b., Çamlidere, 3.6.1986, S. Kadlec leg."- MD; 11 paratypes; 1 male, 2 females with same label - MD; 1 male, 1 female with label: "Turcia N, Kursunlu [40°50'N, 33°15'38"E], 19-20.V.1994, leg. R. Hergovits - MD; 1 female, "Turkey, vill. Ankara, Köroğlu Dağlari Mts., Kizilcahamam, 13.6.1991, Bednařík and Kovařík leg." - SM; 2 males, 1 female, "Angora, Escherich 1895" - ZMM; 2 males, "Amasia" - ZMM.

The paratypes (6 males and 3 females) of *C. f. corallipes* from near Karagöl (Ankara prov.) also belong to *C. f. angorensis* **ssp. n. Distribution.** North of West Turkey, northwards Ankara in Ankara and Camlidere provinces.

Cortodera flavimana karsensis ssp. n. Figs 45-46; Map 2: 36-37

Type locality: Turkey, west part of Kars province, Sarykamyš environs.

Only 4 males available; all specimens are small and about same in color and morphology; antennae black with reddish basal joints; elytra and abdomen totally black; anterior legs red (with black femora bases), others - black; thoracic pubescence relatively short, hardly arranged in two ridges; elytral pubescence short, without erect setae near scutellum; maxillary palpi relatively short; body length (males): 8.0-8.8mm, body width: 2.4-2.8mm.

Materials. Holotype, male with label: "Sarykamyš et vicina 10.VI.[19]13" - ZMM; 3 paratypes; 2 males with same label - ZMM; 1 male (the longest) with label: "Ardagan, gub. Kars, 7.VII.1916" - ZMM.

Distribution. North-east Turkey, west part of Kars province (Sarykamyš environs) and probably Ardagan province (a single male is available).

Cortodera flavimana sergeyi ssp. n. Figs 47-48; Map 2: 38

Type locality: East Turkey, north part of Tuncely province, Pulumur env., 1500-1875m.

The new subspecies demonstrates same color patterns as nominative subspecies, but forms with black elytra are not known; elytra are always yellow with black suture, but elytral pubescence in males with numerous long erect setae similar to *C. f. angorensis* **ssp. n.** Antennae usually totally black, or basal joints slightly reddish; maxillary palpi from rather wide, axe-like to more or less elongated; glabrous pronotal longitudinal line relatively wide; abdominal apex always black; body length in males: 8.5-9.5mm, width: 2.7-3.1mm; body length in females: 8.1-9.6mm, width: 2.6-3.1mm.

Materials. Holotype, male with label: "TR E, Pulumur env., 1500-1875m, 16-23.V.2011, 39.4932N, 39.9135E, J.Hron, S.Murzin leg." - MD; 13 paratypes: 7 males and 6 females with same label - MD and SM.

Distribution. East Turkey; north part of Tuncely province.

Etymology. The new taxon is dedicated to a well known Russian entomologist Sergey Murzin, who collected the type series and provided me with the specimens for study.

Cortodera flavimana oezdikmeni ssp. n. Figs 49-54; Map 2: 39-42

Type locality: South Turkey, Kahramanmaraş province, Çağlayan env.

All available specimens are in poor condition, with brocken legs and antennae, with deformed elytra; the arrangement of pronotal setae in two rows usually indistinct; pronotal smooth line wide or narrow; the level of individual variability is very high: males and females can be with black elytra; abdomen black or with red apical segments (also in specimens with black elytra); yellow elytra always with black suture, though black stripe can be very narrow; elytral bases with several erect setae; legs often totally red with darkened

tarsi, or apical parts of middle and hind femora black, or only anterior tibiae and femora red; specimens with black elytra can be with all legs black; apical joints of maxillary palpi elongated; antennae from totally reddish (also in specimens with black elytra) to totally black, sometimes black with red 1st joint; male genitals are similar to *C.f. torosensis* **ssp. n.**; body length in males: 8.5-10.5mm, width: 2.7-3.3mm;; body length in females: 9.3-11.5mm, width: 3.0-4.0mm.

Materials. Holotype, male with label: "Türkiye 28.5.2003 / Çağlayan Cöyü 200m / kuzeydogusu / Kahramanmaraş 918m / 37°48'N, 36°39'E / A.Y. Okutaner leg." - MD; 18 paratypes; male and 2 females with same label - MD; 3 females: "Çağlayan Cöyü 200m / kuzeydogusu / K. Maraş / Türkiye / 28.5.2003 / 918m. / 37°48'N, 36°39'E / leg. A.Y. Okutaner / Özdikmen 03.54" - HO; 2 males and female with label: "Türkiye, 26.5.2003, Cardak Kasabasi / Gökun 1338m / Kahramanmaras / 38°05'N, 36°49'E / A.Y. Okutaner leg." - MD; 2 females: "Çardak Kasabasi / Gökun / K. Maraş / Türkiye / 26.5.2003 / 1338m. / 38°5'N, 36°49'E / leg. A.Y. Okutaner / Özdikmen 03.42" - HO; male and female: "Tanir Kasbasi yesiloba / m. karasalgan mevkii / Afsin / K. Maras / Türkiye / 25.5.2003 / 1230m. / 38°22'N, 36°54'E / leg. A.Y. Okutaner / Özdikmen 03.39" - HO; 2 males: "Küçüksu Köyünün 1 / km doğusu göcük / yalasi / Göksun / K. Maraş / Türkiye / 26.5.2003 / 1330m. / 38°3'N, 36°39'E / leg. A.Y. Okutaner / Özdikmen 03.44" - HO: 2 males (with black elvtra) and female: "Kirecköv'ün / batisi / Göksun / K. Maraş / Türkiye / 28.5.2003 / 1500m. / 37°59'N, 36°30'E / leg. A.Y. Okutaner / Özdikmen 03.51" - HO.

Distribution. South Turkey, about whole territory of Kahramanmaraş province.

Etymology. The new taxon is dedicated to Hüseyin Özdikmen - a well known Turkish biologist, who collected a part of the type series and sent to me many specimens from his *Cortodera* collection for study.

Cortodera flavimana torosensis ssp. n. Figs 55-56; Map 2: 43-44

Type locality: South Turkey, Içel, 40 km E Mut, Cornelek.

Only two males available; elytra with very long and dense pubescence, much longer, than in any other form of the species (especially in holotype), with numerous erect setae anteriorly; elytral punctation in holotype very dense, with conjugated dots; apical joints of maxillary palpi elongated; body black with totally black abdomen, elytra yellow with suture black (holotype) or dark bown (paratype); antennae black with slightly lightened basal joints; legs black with red anterior femora and tibiae; prothorax and elytral bases with numerous long erect setae; body length: 9.9mm (paratype) - 10.7mm (holotype), width: 3.3mm (paratype) - 3.4mm (holotype).

Materials. Holotype, male with label: "Turkey S, 40 km E Mut [Içel], Cornelek, 29.5.1996, leg. Marek Halada" - NMP; paratype, male with label: "Pozanti [Adana], 91-2000m" - NMP.

Distribution. Turkey, Taurus Mountains (Toros Dağları), two localities known: Içel prov., 40 km E Mut and Adana prov., Pozanti (37°25'N, 34°52'E) env., 2000m.

Cortodera flavimana sultanensis ssp. n. Figs 57-59; Map 2: 45-46

Type locality: South Turkey, Sultandag Ridge at south and west sides of Akşehir Lake.

Three males and one female available. The subspecies is also characterized by rather long elytral pubescence, but without erect setae near scutellum; besides it differs from subspecies of southern Anatolia by strong development of temples; all available specimens with totally black elytra; 3 specimens (including holotype and female with totally red legs), 1 male with only anterior legs red; antennae black or with red anterior joints; abdomen black; body length in males: 8.2-10.3mm, width: 2.6-3.3mm; body length in female: 9.3mm, width: 3.3mm.

Materials. Holotype, male with label: "Asia Minor, Sultan Dagh, v.

Bödemeyer" - ZMM; 3 paratypes; 1 female with same label - ZMM; 2 males (one in very bad condition) with label: "Anatolia, Ak Chehir" - ZMM.

Distribution. Two localities known at south and west sides of Akşehir Lake along Sultandag Ridge (provinces Afyon and Konya).

Cortodera neali Danilevsky, 2004

Fig. 60

Cortodera neali Danilevsky, 2004: 2 - "Iran, Kurdistan, 66 km NNW Sanandadj".

Type locality: Iran, Kurdistan, 66 km NNW Sanandadj.

The species was described on the base of several males and a single female with strongly damaged prothorax. One new male very similar to the holotype was received by me from about same area. Besides two more females are available now from about type locality, but from Iraq outside Iranian territory (both without antennal apices). Both females are of just same color as paratype, but smaller, one is a little narrower, another - a little wider; body length in males: 9.5-12.2 mm; body length of a newly received male: 9.6 mm; body width in males: 2.9-3.5 mm; body length of the paratype female: 12.5 mm, width - 4.1 mm; body length of females fom Irag: 10.9-11.2mm, width (at humeri): 3.4-3.8 mm.

Materials. 1 male, Iran, Kurdistan province, Sanandaj-Saral, 25.5.2010, H.Ghobari leg. - MD; 2 females, NE Iraq, Mishaw (about 35°47'55"N, 46°18'13"E), 1750m, 6-8.6.1976, J. Macek leg. - NMP.

Distribution. Kurdistan near Iraq-Iran border.

Cortodera obscurans Pic, 1894 Figs 61-66

Cortodera semilivida var. obscurans Pic, 1892b: exi (without number of specimens) - "le nord de la Syrie" (unavailable).

Cortodera rufimana [wrong spelling of flavimana Waltl] var. obscurans Pic, 1893: 415 (without number of specimens) - "Haute-Syrie" (unavailable).

Cortodera obscurans Pic, 1894: 116 - "Syrie, Akbès"; Sama & Löbl, 2010: 123 - Turkey.

Cortodera obscurans [var. - "nuance"] flavescens Pic, 1894: 116 - "Syrie, Akbès" (unavailable).

Cortodera obscurans var. fulvipennis Pic, 1898b: 50 - "Akbès" (unavailable).

Cortodera obscurans var. flavescens, Pic, 1898b: 50 - "Akbès" (unavailable).

Type locality: Hatay prov. in south-east Turkey.

Cortodera semilivida var. obscurans Pic, 1892b: cxi - ("le nord de la Syrie") was described from same area as Cortodera semilivida and so unavailable. The variation was later (Pic, 1893) published as a form of C. flavimana as: Cortodera rufimana [wrong spelling of flavimana Waltl] var. obscurans, Pic, 1893: 415 ("Haute-Syrie"). Then it was published (Pic, 1894) as a species name and so became available. Two more unavailable names were introduced by Pic for same area: Cortodera obscurans var. flavescens Pic, 1894: 116 - "Syrie, Akbès" and Cortodera obscurans var. fulvipennis Pic, 1898b: 50 - "Akbès".

The original description of *Cortodera obscurans* Pic, 1894 was published on the base of at least two syntypes: "Long. 9 á 10 mill". One syntype (male with label "type"; Figs 61-62) is preserved now in Plavilstshikov's collection - ZMM. It is designated here as a lectotype.

A female (Figs 63-64) of this species in Plavilstshikov's collection with 3 labels [1)"type", 2) Syrie, Amanus, C.D. 1891, 3) Cortodera obscurans var. flavipennis Pic] is most probably another syntype of C. obscurans Pic with wrong spelling of variation name (var. flavescens Pic, 1894). I don't know the publication of var. flavipennis Pic in that group. So, the female is designated here as paralectotype of C. obscurans Pic, 1894.

Another old male [ZMM] very similar to the lectotype was collected in 1895 and so can not be designated as paralectotype. Forth specimen of the species (male; Figs 65-66) in Plavilstshikov's collection was identified by E.Reitter as *Cortodera obscurans* ab. *fulvipennis*. No specimens of *C. obscurans* Pic are preserved in Pic's collection in Paris.

The species was regarded by Pic (1894) as very close to *C. colchica*: "très voisin de *colchica* Reitt.", but last joints of maxillary palpi and 2nd antennal joints more elongated, prothorax in males strongly widened basally; besides red anterior legs while other legs black are typical for *C. flavimana*, but impossible in *C. colchica*.

Body length in available males: 9.8-10.3mm, body length in available female: 10.0 mm.

Materials. Male, lectotype [present designation] of Cortodera

obscurans Pic, 1894 with 4 labels: 1) type, 2) Syrie, Amanus, C.D. 1891, 3) Cortodera obscurans Pic, 4) obscurans Pic - ZMM; 1 female, paralectotype [present designation] with 3 labels: 1) "type", 2) Syrie, Amanus, C.D. 1891, 3) Cortodera obscurans var. flavipennis Pic - ZMM; 1 male (similar to the lectotype) with 2 labels: 1) Syrie, Akbes, C D. 1895, 2) Cortodera obscurans - ZMM; 1 male with 3 labels: 1) Syrien, Reitter, 2) Cortodera obscurans ab. fulvipennis det. Reitter, 3) 38 - ZMM.

Cortodera colchica erzurumensis ssp. n. Fig. 67

Type locality: Turkey, Erzurum prov., 15km SW Erzurum, Palandöken Dağlari, Tekederesi village env., 39°49'-39°46.1'N, 41°08.7'-41°10.3'E.

Only three females known; relatively big, bigger than the nominative subspecies from Transcaucasia; apical joints of maxillary palpi elongated; antennae black with partly reddish basal joints; pronotal punctation regular, moderately dense; pronotal glabrous line very small or indistinct; elytra orange-yellow, sometimes darkened near scutellum, parallelsided; elytral pubescence relatively long semierect, without erect setae near base; legs black with lightened anterior tibiae or bicolored: red with black femora apices and tarsi; abdomen totally black; body length: 8.2-10.0mm, width: 2.7-3.2mm. **Remark**. The nearest subspecies from Kars *C. c. aestiva* Sama & Rapuzzi, 1999 **stat. n.** described as a species is about similar size and color, but pronotal punctation much denser and smaller; pronotal glabrous line distinct; elytral punctation bigger, elytral pubescence shorter.

Materials. Holotype, female, Turkey, Erzurum prov., 15km SW Erzurum, Palandöken Dağlari, Tekederesi village env., 39°49′-39°46.1′N, 41°08.7′-41°10.3′E, 26-28.6.2004, springs, pools, steppes and meadows, margin of snow fields, scree, J.Hájek and J.Růžička leg. - NMP; 2 paratypes, females with same label - NMP.

Several specimens of *C. c. aestiva* Sama & Rapuzzi, 1999 **stat. n.** were used for comparison: 3 males, 3 females, paratypes of *C. aestiva* Sama & Rapuzzi, 1999, Kars, Sarikamis, 2000m,

21.6.1994, G.Sama leg. - MD; 1 male, 1 female, same locality, 20-21.6.1994, I.Rapuzzi leg. - MD; 2 males, 2 females, 14km SE Sarikamis, 2000m, 7.6.1998, G.Sama leg. - MD; 1 male, 2 females, dint Sarikamis, 28.6-1.7.1997, leg. Pad. Mal. - MD.

Distribution. Turkey; Erzurum environs.

Cortodera colchica aksarayensis Özdikmen & Özbek, 2012, stat. nov. Cortodera aksarayensis Özdikmen & Özbek, 2012: 931 - "Turkey, Aksaray prov.: Entry of Nevşehir-Aksaray".

Type locality: Turkey, Aksaray prov.: Entry of Nevşehir-Aksaray.

Small and relatively dark subspecies with wide range of individual variability, but legs, antennae and abdomem are usually black; holotype (male), as well as 3 males and 1 female from Malatya have red abdomen and partly red legs; males of all C. colchica from Transcaucasia, and about all from North Caucasus have totally black legs: in fact only two males among many hundreds known specimens have red (Psebay) or bicolored (Chegem) legs; besides the holotype has red antennal bases - quite a unique character in the species; other available specimens from type population (3) males and 1 female collected by H.Özdikmen same date 20.5.1997, but not designated as paratypes) have black legs, antennae and abdomen; elytra are usually dark-brown, often with black triangle behind scutellum; sometimes totally black, or light-brown or yellow (a single female from Buglan); elytral pubescence black and very short, without erect setae; apical joint of maxillary palpi short, triangular; sometimes antennae slightly lightened; anterior tibiae often yellowish; pronotal punctation moderately dense; pronotal glabrous line short and narrow or indistinct; body length in males: 6.4-11.0mm, width: 2.0-3.5mm;; body length in females: 7.4-11.2mm, width: 2.4-3.6mm.

Materials. 3 males, 1 female with label [type locality]: "Nevşehir - Aksaray girişi, **Aksaray**, Türkye, 20.05.1997, Özdikmen 19" - HO; 1 male Turkey, **Konya** prov., Hadim-Beyreli road 3km, 36°56'N, 32°23'E, 13.6.2007, H.Özdikmen - HO; 1 male, Turkey, **Antalya** prov., Akseki, Cevizli, 37°11'N, 31°46'E, 19.5.2008, H.Özdikmen - HO; 11 males, 5 females, Turkey E (**Muş**), Buglan Geçidi, 4km NE

Karabey vill., 1640-1700m, 26.5.2011, A.Napolov & I.Roma leg. - AN and MD; 15 males, 9 females, "Turkey E (**Malatya**), 30km SW Malatya, SE env. of Eskiköy vill., 1570-1620m, 30.5.2011, A.Napolov & I.Roma leg." - AN and MD; 2 males, 2 females, "Turkey E (**Içel**), 6-7km NW Erdemli, 400-450m, 3.6.2011, A.Napolov & I.Roma leg." - AN and MD; 1 male, "TR - vil. **Sivas**, Karabayir Geçidi, 1925m, 12.6.1999, S.Kadlec leg." - NMP; 1 female, "TR - (20km N of Zara) Kurubagbeli, 1800m, 4.6.1998, S.Kadlec leg." - NMP.

Distribution. About whole south Anatolia, definitely known from 6 provinces: Aksaray, Konya, Antalya, Muş Malatya, Içel. Sivas is represented in available materials by 2 specimens only without any peculiar characters, so that population is preliminary also included in *C. c. aksarayensis*.

Cortodera colchica porsukensis ssp. n. Figs 68-69

Type locality: Turkey, Eskişehir, Porsuk Baraji, 39°38′08″N, 30°16′46″E.

Big subspecies; antennae and elytra totally black, as well as legs in two males, though anterior tibiae more or less lightened; legs of a single available female and in holotype bicolored: anterior legs with red tibiae and femora, tarsi black; middle and posterior legs red with black femora bases and bicolored tarsi; abdomen in holotype and in female with red apex; apical joints of maxillary palpi triangular; pronotal punctation small and very dense; pronotal glabrous line very narrow, nearly indistinct; elytral pubescence in males moderately long, semierect; elytral punctation small and dense; body length in males: 9.0-10.0mm, width: 2.8-3.3mm; body length in female: 10.3mm, width: 3.2mm.

Materials. Holotype, male with label: "Turkey CW, Eskişehir, Porsuk Baraji [39°38′08″N, 30°16′46″E], 22.5.1998, M.Snižek" - NMP; 3 paratypes, 2 males and 1 female, same locality, 23.5.1998, M.Snižek - NMP.

Distribution. Turkey, Eskişehir prov.

Cortodera kadleci sp. n. Fig. 70

Type locality: Turkey, Erzincan, Tercan, 39°46'42"N, 40°23'2.00"E.

Only 1 female available; it looks like a very big C. colchica because of partly red legs and red abdominal apex; but prothorax with relatively sparce punctation with big lateral tubercles; elytra dark, reddish-brown, with very short pubescence; maxillary palpi about two times longer than wide (left maxilla) or a little longer (right maxilla); temples rounded, not angulated; antennae totally black, reaching elytral third; 3rd joint about as long as 1st, 4th - a little shorter, 5th - distinctly longer; prothorax about 1.2 times wider at base than long, angulated near middle; pronotum with shallow depression along middle and here with wide shining glabrous line posteriorly; pronotal punctation relatively small, sparse near middle; pronotal pubescence moderately long, mixed of erect and oblique setae; elytra slightly widened behind middle, about 2 times longer, than humeral width, with big strong punctation; elytral pubescence pale, very short, oblique, with several erect setae near base; all tarsi black; anterior tibiae red, others black; anterior femora red with black apices, others - red with black apical third; abdomen black with red three apical segments; body length: 12.3mm, width: 3.9mm.

Materials. Holotype, female, TR, vill. Erzincan, Tercan [39°46'42"N, 40°23'2.00"E], 24.6.1986, S. Kadlec leg. - NMP.

Distribution. Turkey, east of Erzincan province.

Etymology. The new species is dedicated to Stanislav Kadlec - a well know Czech entomologist, a creator of a big Cerambycidae collection, which is preserved now in Národní Museum, Prague.

Cortodera napolovi sp. n. Figs 71-73

Type locality: Turkey, Muş, Buglan Geçidi, 4km NE Karabey vill., 1640-1700m.

The new species is close to *C. colchica*, but body strongly elongated, with rather long dorsal pubescence. The type series was

collected same day and in same locality as local *C. colchica* aksarayensis Özdikmen & Özbek, 2012.

Maxillary palpi elongated in males and in females: temples strongly angulated; antennae totally black, reaching elytral forth; in males 3rd joint much longer than 1st, which is about equal to 4th; 5th joint is the longest; in females 3rd joint about as long as 1st or 5th; 4th joint is the shortest; prothorax in males about 1.2 times wider at base than long, in females - 1.5 times; slightly angulated near middle in males, or strongly angulated in females; pronotum with shallow depression along middle and here with more or less shining glabrous line; pronotal punctation small and very dense; pronotal pale pubescence with long erect and short oblique setae; in females erect setae shorter, oblique setae more adpressed, with a row of dense yellow setae along base; elytra about 2.2 times longer than wide in males, or about 2.1 times in females; black or reddish-brown (one female); with moderately big, strong and very dense punctation; with sides strongly tapering posteriorly in males or about parallesided in females; elytral pubescence pale, rather long, with numerous erect setae near base in males; legs can be totally black with lightened anterior tibiae (male-paratype and female with light elytra) or bicolored; in holotype all tarsi black, all tibiae red, femora red with black apices: female with black elvtra also bicolored but a little darker; abdomen totally black (male-paratype and female with light elvtra), or with red apex; holotype with red last segment and red margins of 4th visible segment, female with black elytra has red last abdominal segment and red posterior half of 4th visible segment; posterior borders of apical segments in males and females rounded; body length in males: 8.5-9.2mm, width: 2.6-2.9mm; body length in females: 9.5-10.0mm, width: 8.1-8.2mm.

Materials. Holotype, male, Turkey E (Muş), Buglan Geçidi, 4km NE Karabey vill., 1640-1700m, *Ranunculus*, 26-27.5.2011, A.Napolov & I.Roma leg. - MD; 2 males, 2 females with same label - AN.

Distribution. South-east Turkey, Buglan Geçidi.

Etymology. The new species is dedicated to Lettish biologist Alexander Napolov, who collected a part of the type series and provided me with his specimens for study.

Cortodera discolor Fairmaire, 1866 Figs 74-77

Cortodera discolor Fairmaire, 1866: 277 - "Bosz-Dagh" (West Anatolia, mountains eastwards Izmir).

Type locality: West Turkey, Izmir prov., Boz-Dag.

The types are unknown, but traditional interpretation of the species allows to regard it as a vicariant close to the taxa known now as *C. differens differens* Pic, 1898a (= steineri Sama, 1997b) from Greece and *C. differens magdae* Danilevsky, 2012b from Bulgaria, Romania and European Turkey. All three taxa consist of rather robust, big specimens with black legs (anterior tibiae usually light), antennae and abdomen; elytra brown or black; pale elytra in eastern populations usually rather dark. Only two females [NMP] of the nominative subspecies available (Fig. 74: "W-Turkey, Manisa Dagi, 28-30.4.1994, D. Hauck leg."). Both females of *C. d. discolor* differs form the closest populations of *C. differens magdae* by: more elongated apical palpi joints; sparser, less regular pronotal punctation; wider pronotal glabrous line; bigger elytral punctation; lighter and longer elytral pubescence; body length: 10.3-11.0mm, width: 3.5-3.7mm.

Distribution. The nominative subspecies is definitely known from Izmir and Manisa environs, but could be distributed much wider. The species area seems to cover the most part of Anatolia eastwards to about Van Lake.

Cortodera discolor ankarensis ssp. n. Fig. 75

Cortodera discolor m. differens, Demelt, 1967: 107 - "Kizilchahamam, 28.5.64, vereinzelt auf Chrysanthemum".

Type locality: Turkey, north of Ankara prov., Çamlidere.

Only 9 females available; very similar to the nominative subspecies, but epical palpal joints much longer; pronotal punctation smaller and denser; pronotal glabrous line very narrow; elytral color just same as in *C. differens magdae*, but never black; all available

specimens with distinct black area near scutellum, which is absent in known to me specimens of the nominative subspecies or in *C. differens differens*, and is very rare in *C. differens magdae*; elytral pubescence relatively long similar to the nominative subspecies; elytral punctation also about same; antennae totally black; legs black with lightened anterior tarsi; abdomen totally black; body length: 9.0-11.5mm, width: 2.7-3.7mm.

Materials. Holotype, female with two labels: 1) Turkey, Anatolia bor., Çamlidere, 3.6.1986, S.Kadlec leg.; 2) *Cortodera discolor* Fairm., S.Kadlec det. - MD; 8 paratypes; 3 females with same labels - SM; 4 females with label: "NW Turkey, Akyarma Geç., NW Kizilcahamam, 1570m, 4035N, 3232E, 31.V.2001, lgt. S.Kadlec" - NMP; 1 female with label: "Yukari Çanli, K.hamam, Ankara, Türkiye, 14.06.1997, 1540m, Akçay. 18" - HO.

Distribution. North of Ankara province.

Remark. In general *C. d. ankarensis* **ssp. n.** is closer to *C. differens magdae* Danilevsky, 2012b, than to *C. d. discolor*. Probably it would be more correct to regard all taxa of the group as a system of subspecies, including *C. discolor differens* Pic, 1898a and *C. discolor magdae* Danilevsky, 2012b.

Cortodera discolor gumushanensis ssp. n. Fig. 76

Type locality: Turkey, Gümüşhane, Pass SW Yeniyol, 1200m.

Only 1 female available; it differs from *C. d. ankarensis* **ssp. n.** by wider body; sparser pronotal punctation, indistinct pronotal glabrous line, distinctly bigger elytral punctation; elytra about same color as in *C. d. ankarensis* **ssp. n.** - dark brown; black area behind scutellum very narrow; elytral pubescence about as long as in the previous taxa; joints of maxillary palpi elongated; antennae, legs and abdomen black; anterior tibiae lightened; body length: 10.7mm, width: 3.3mm.

Materials. Holotype, female with label: "TR - vil. Gümüşhane, Pass SW Yeniyol, 1200m, 17.6.1999, S. Kadlec lgt." - NMP.

Distribution. North-east Anatolia, south border of Gümüşhane province.

Cortodera discolor bitlisiensis ssp. n. Fig. 77

Type locality: East Turkey, 17km W Tatvan, 38°30'N, 42°09'E,

Only 1 female available; it is similar to the previous taxon; all color patterns are same, as well as relative length of antennal joints; externally similar females of *C. cirsii* Holzschuh, 1975 have much longer antennal joints; elytral suture totally pale, elytra without black area behind scutellum, elytral pubescence rather shorter; elytral punctation a little bigger; pronotum with sparser punctation, with distinct wide shining glabrous line; body length: 10.7mm, width: 3.3mm.

Materials. Holotype, female with label: "E Turkey, 17km W Tatvan, 3830N, 4209E, 20.5.2001, S. Kadlec lgt." - NMP.

Distribution. South-east Anatolia, Bitlis province.

Cortodera alpina tatvanensis ssp. n Figs 78-80

Type locality: East Turkey, 15km westwards Tatvan.

Body small, narrow in males and a little wider in females or in the population closer to Tatvan (11 km SW Tatvan) specimens a little bigger; elytral sides in males strongly tapering posteriorly; males black, with black shining elytra, black antennae, legs and abdomen; anterior tibiae slightly lightened; females black with yellow or black elytra, antennae black with more or less lightened basal joints; legs in females usually with yellow anterior tibiae and with or without yellow spots in the middle of anterior femora; male antennae long, nearly reaching elytral apex; apical joints of maxillary palpi in males a little longer than wide, in females - more elongated; pronotal punctation in males irregular, partly sparse; in females - denser; pronotal glabrous line relatively wide, distinct near hind pronotal margin; elytra with big, distinct, dense punctation; elytral bases with several erect setae or with numerous erect setae in the population closer to Tatvan (11 km SW Tatvan); body length in

males: 6.8-9.5mm, width: 2.1-2.9mm;; body length in females: 7.3-10.0mm, width: 2.3-3.0mm.

Materials. Holotype, male, Turkey, 15km W of Tatvan, 4.6.1992, V. Bíža and Z. Košťal leg. - NMP; 13 paratypes; 1 male, 4 females with same label - NMP; 6 males, 2 females, Turkey, 11km SW of Tatvan, 4.6.1998, G.Sama leg. - MD.

Distribution. South-east Anatolia, Bitlis province.

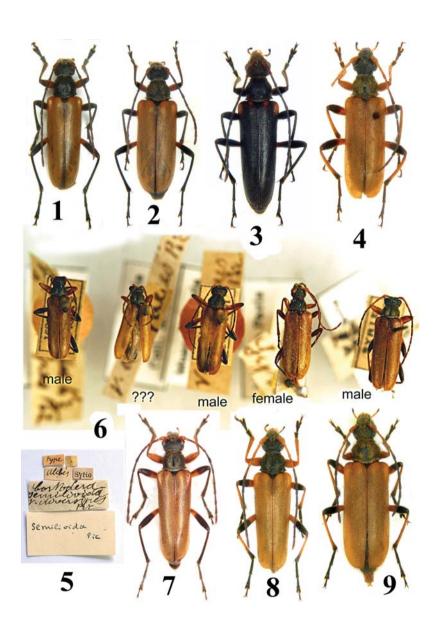
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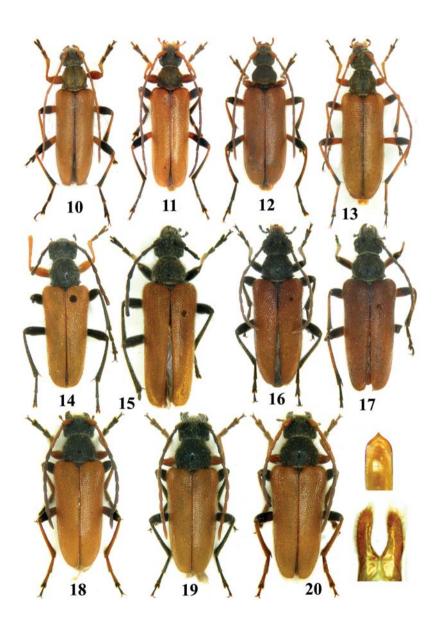
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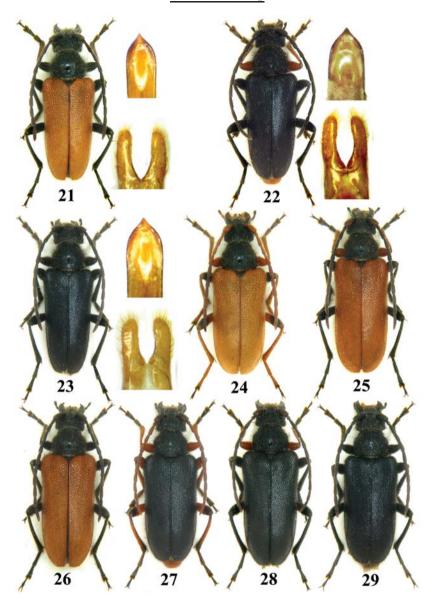
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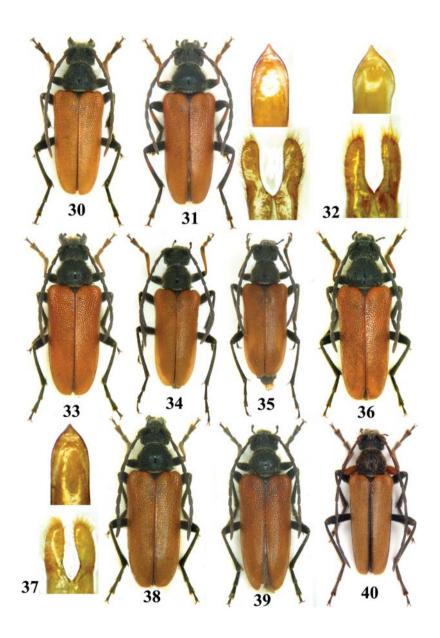
- **Figs 1-3**. *C. humeralis moreensis* **ssp. n.:** 1 holotype, male, Greece, Peloponnesus, Arkhadia, Vourvoura env., 900m, 22.5.2003, R.Hergovits leg.; 2 paratype, female with same label; 3 paratype, male, Greece, Peloponnesus, Arna, 13.5.2000, S. Kaluz leg.
- **Figs 4-6**. *C. semilivida* Pic.: 4 lectotype, male, Turkey, Hatay prov., "Akbes"; 5 labels of the lectotype; 6 series of *Cortodera semilivida* var. *diversipes* Pic, from Pic's collection (Paris) photo by G.Tavakilian.
- **Figs 7-9**. *C. orientalis* Adlbauer.: 7 holotype, male, "Amanusgebirge, Nurdagi Geçidi" (photo by C.Adlbauer); 8 male, Hassanbeyli env., Nurdagi Geç., 17.5.2002, Košťál & Voříšek leg.; 9 female with same label.



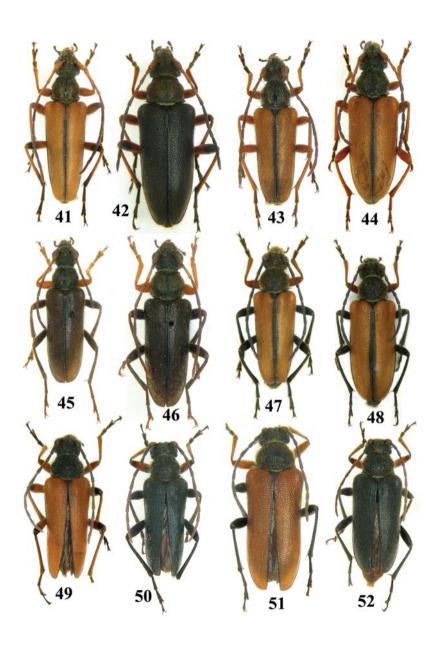
- **Figs 10-13**. *C. pumila meltemae* Özdikmen, Mercan & Cihan, 2012.: 10-11 males, NW Turkey, Guvem, SW Cerkes, 31.V.2001, P. Kabatek leg; 12-female, with same data, but M.Rejzek leg.; 13 female, Kizilcahamam, Juni, 1973, L.Steiner leg.
- **Figs 14-17**. *C. wittmeri wittmeri* Holzschuh, 1995: 14 male, Nigde, Ulukisla, 1400m, 23.06.1997; 15 male, Antalia, Akseki-Güzelsu, 36°59'N, 31°50'E, 1154m, 9.6.2008, H.Özdikmen leg.; 16-17 females with same label.
- **Figs 18-20**. *C. wittmeri akshehirensis*, **ssp. n.** 18 holotype, male, 17km SE Akşehir, Yesilkoy env., 18.5.1998, S. Kadlec leg.; (20 with genitals); 19-20 paratypes, males with same data.



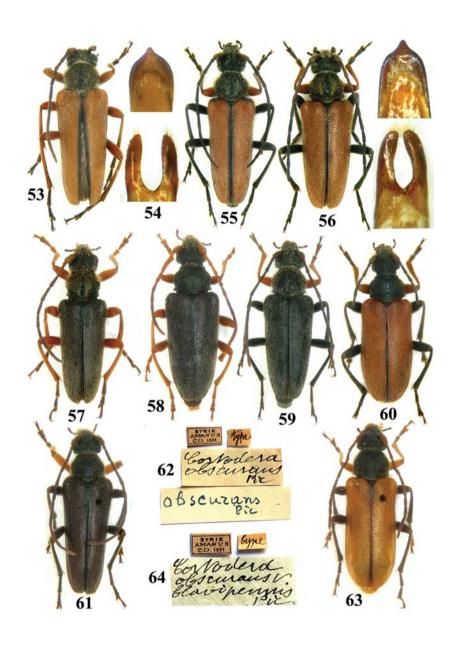
Figs 21-29. *C. wittmeri akshehirensis*, **ssp. n.:** 21-23 - paratypes, males with same data (21-23 - with genitals); 24-29 - paratypes, females with same data.



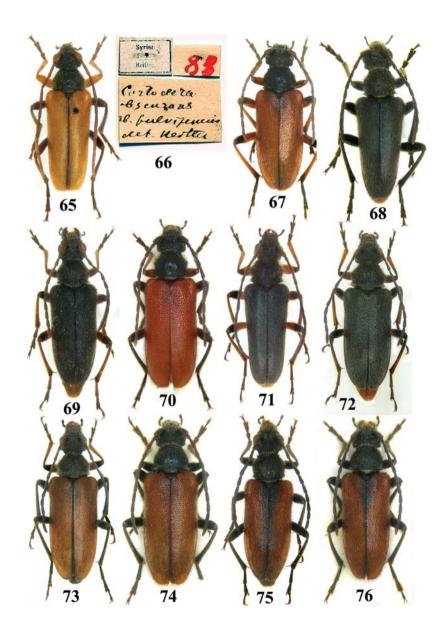
- **Figs 30-33**. *C. wittmeri sivasensis* **ssp. n.:** 30 holotype, male, Sivas, Karabayir Geçidi, 1925m, 12.6.1999, S. Kadlec leg.; 31 paratype male with genitals with same label; 32 genitals of the smallest paratype-male with same label; 33 paratype female with same label.
- **Figs 34-35**. *C. wittmeri malatyaensis* **ssp. n.:** 34 holotype, male, Malatya, Eskiköy invirons, 1570-1620m, 30.5.2011, A.Napolov & I.Roma leg.; 35 paratype, female with same label.
- **Figs 36-39**. *C. wittmeri gevashensis*, **ssp. n.:** 36 holotype, male, Van, Gevaş env., 12.6.1992, 1800m, S. Kadlec leg.; 37 genitals of the paratype with same label; 38-39 paratypes, females with same label.
- **Fig. 40**. *C. flavimana flavimana*: male from about type locality, European Turkey, Kirklareli, Poyrali, 7km E Pinatisar 5.5.2001 S.Kadlec leg.



- **Figs 41-42**. *C. flavimana inonuensis*, **ssp. n.:** 41 holotype, male, Eskisehir, Inonu, 26.5.1981 G.Sama leg.; 42 paratype, female, Kütahya, 10km NE of Domaniç, Uludag, 23.8.2002, J. Mertlik leg.
- **Figs 43-44**. *C. flavimana angorensis*, **ssp. n.:** 43 holotype, male, Camlidere, 3.6.1986, S. Kadlec; 44 paratype, female with same label.
- **Figs 45-46**. *C. flavimana karsensis*, **ssp. n.:** 45 holotype, male, Kars, Sarykamyš, 10.6.1913; 46 paratype, male, Ardahan.
- **Figs 47-48**. *C. flavimana sergeyi*, **ssp. n.:** 47 holotype, male, Tunceli, Pulumur env., 1500-1875m, 16-23.5.2011, J.Hron & S.Murzin leg.; 48 paratype, female with same label.
- **Figs 49-52.** *C. flavimana oezdikmeni*, **ssp. n.:** 49 holotype, male, Kahramanmaraş, Caglayan Cöyü, 28.5.2003, A.Y. Okutaner leg.; 50 paratype, male with same label; 51-52 paratypes, females with same label.



- **Figs 53-54.** *C. flavimana oezdikmeni*, **ssp. n.:** 53 paratype, male, Kahramanmaraş, Gökun, 26.5.2003, A.Y. Okutaner leg.; 54 genitals of the paratype from same locality, 26.5.2003, A.Y. Okutaner & Özdikmen leg.
- **Figs 55-56**. *C. flavimana torosensis*, **ssp. n.:** 55 holotype, male, Içel, 40 km E Mut, Cornelek, 29.5.1996, leg. M. Halada; 56 paratype, male with genitals, "Pozanti [Adana], 91-2000m".
- **Figs 57-59**. *C. flavimana sultanensis*, **ssp. n.:** 57 holotype, male, "Asia Minor, Sultan Dagh, v. Bödemeyer"; 58 paratype, female with same label; 59 paratype, male, "Anatolia, Ak Chehir".
- **Fig. 60**. *C. neali* Danilevsky, 2004: female, NE Iraq, Mishaw, 1750m, 6-8.6.1976, J. Macek leg.
- **Figs 61-63**. *C. obscurans* Pic, 1894.: 61 Lectotype (present designation), male, "Syrie, Amanus, C.D. 1891"; 62 labels of the lectotype; 63 female, "Syrie, Akbes, C D. 1895".



- Figs 65-66. C. obscurans Pic, 1894.: 65 male, "Syrien, Reitter"; 66 its labels.
- **Fig. 67**. *C. colchica erzurumensis*, **ssp. n.**: holotype, female, 15km SW Erzurum, Palandöken Dağlari, Tekederesi village env., 26-28.6.2004, J.Hájek & J.Růžička leg.
- **Figs 68-69**. *C. colchica porsukensis*, **ssp. n.:** 68 holotype, male, Eskisehir, Porsuk Baraji, 22.5.1998, M.Snižek leg.; 69 paratype, female from same locality.
- **Fig. 70**. *C. kadleci*, **sp. n.**: holotype, female, Erzincan, Tercan, 24.6.1986, S. Kadlec leg.
- **Figs 71-73**. *C. napolovi*, **sp. n.:** 71 holotype, male, Muş, Buglan Geçidi, 4km NE Karabey vill., 1640-1700m, *Ranunculus*, 26.5.2011, A.Napolov & I.Roma leg.; 72-73 paratypes, females with same label.
- **Fig. 74**. *C. discolor discolor* Fairmaire, 1866: female, Manisa, Manisa Dagi, 28-30.4.1994, D. Hauck leg.
- Fig. 75. *C. discolor ankarensis*, ssp. n.: holotype, female, Anatolia bor., Çamlidere, 3.6.1986, S.Kadlec leg.
- **Fig. 76**. *C. discolor gumushanensis*, **ssp. n.**: holotype, female, Gümüşhane, pass SW Yeniyol, 1200m, 17.6.1999, S. Kadlec leg.

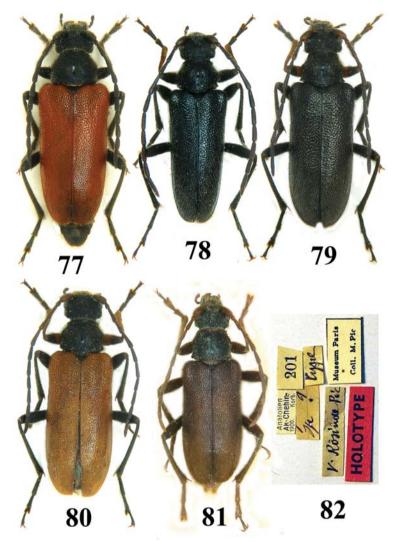


Fig. 77. *C. discolor bitlisiensis*, **ssp. n.**: holotype, female, 17km W Tatvan, 20.5.2001, S. Kadlec leg.

Fig. 78-80. *C. alpina tatvanensis* **ssp. n.:** 78 - holotype, male, 15km W of Tatvan, 4.6.1992, V. Bíža & Z. Košťal leg.; 79-80 - paratypes, females wirh same label.

Figs 81-82. *C. alpina rosinae* Pic, 1902: 1 - holotype, male; 2 - labels of the holotype.



Map 1. Localities of Cortodera wittmeri Holzschuh

C. w. wittmeri: 1-10 (1 - Niğde, Ulukişla; 2 - Içel, Kirobasi environs; 3 - Antalya, Karapinar environs; 4 - Antalya, Akseki-Guzelsu; 5 - Antalya, Teke Geçidi; 6 - Bademli Geçidi; 7 - Konya, between Hadim and Bozkır; 8 - Konya, Seydişehir; 9 - Konya, Tavsancali; 10 - Aksaray, between Aksaray and Nevşehir); C. w. akshehirensis ssp. n.: 11 (Konya, Yesilkoy); C. w. sivasensis ssp. n.: 12-13 (12 - Sivas, Karabayir Geçidi; 13 - Erzurum, Oltu); C. w. malatyaensis ssp. n.: 14 (Malatya, Eskiköy env.); C. w. gevashensis ssp. n.: 15 (Van, Gevaş env.).

Map 2. Localities of Cortodera flavimana (Waltl)

C. f. flavimana: 1-16 (Turkey: 1 - Turkey, Kirklareli, Poyrali, 7km E Pinatisar; 2 - Abant lake; 3 - Zoguldak, Karadere - Egerci; Bulgaria: 4 -Arkutino: 5 - Elenite: 6 - Varna: 7 - Zaimtchevo: 8 - Rakovo: 9 - Harmanli: 10 - Bachkovo; 11 - Bessaparski Hulmove hills; 12 - Vitosha Mt.; 13 -Pirin; 14 - Petrič; Macedonia: 15 - Bitola; Greece: 16 - Kastanea); C. f. schurmanni stat. n.: 17-18 (Greece: 17 - Kalavrita; 18 - Dimitsana); C. f. inonuensis ssp. n.: 19-21 (Turkey: 19 - Eskisehir, Inonu; 20 - Kütahya, 10km NE of Domanic, Uludağ pass; 21 - Mt. Olymp); C. f. zoiai, stat. n.: 22 (Turkey, north of Izmir vil., 4km NE Kozak); C. f. rufipes: 23-24 (Turkey: 23 - Izmir env.; 24 - Manisa Dagi); C. f. angorensis ssp. n.: 25-29 (Turkey: 25 - Ankara environs; 26 - Ankara prov., Karagöl; 27 - Ankara prov., Camlidere; 28 - Cankiri prov., Kursunlu; 29 - Amasya); C. f. corallipes: 30-35 (Turkey: 30 - Trabzon, Zigana Geçidi; 31 - Gümüşhane, Vavuk Gecidi; 32 - Erzerum, Askale; 33 - Erzerum, Pasaki; 34 - Erzerum, Ispir; 35 - Artvin, Savsat); C. f. karsensis: 36-37 (Turkey: 36 - Kars, Sarykamyš; 37 - Ardahan); C. f. sergeyi ssp. n.: 38 (Turkey: Tuncely, Pulumur); C. f. oezdikmeni ssp. n.: 39-42 (Turkey: 39 - Kahramanmaras, Afşin, 40 - Kahramanmaraş, Cardak; 41 - Kahramanmaras, Goksun; 42 -Kahramanmaras, Çağlayan); C. f. torosensis ssp. n.: 43-44 (Turkey: 43 -Adana, Pozanti; 44 - Icel, 40 km E Mut); C. f. sultanensis ssp. n.: 45-46 (Turkey: 45 - Sultan Dagh; 46 - Aksehir).

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