

**TWO NEW SPECIES GROUP TAXA OF *CORTODERA*
(COLEOPTERA: CERAMBYCIDAE: LEPTURINAE) FROM
TURKEY WITH UPDATED SPECIES GROUP LIST**

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ABSTRACT: A new species of the genus *Cortodera* Mulsant, 1863 (Cerambycidae: Lepturinae: Rhagiini) is described as *Cortodera neslihanae* sp. nov. from Çankırı province (Turkey). Also a new subspecies of *Cortodera orientalis* Adlbauer, 1988 from Mardin province is described as *Cortodera orientalis didemae* ssp. nov.. Accordingly, all Turkish members of *Cortodera* Mulsant, 1863 are updated with their type information and known distribution data in Turkey.

KEY WORDS: *Cortodera*, *Cortodera neslihanae*, *Cortodera orientalis didemae*, new species and subspecies, updated species group list, Turkey.

Although Turkey is adjacent to large bodies of water to the south, west, and north, it has continental properties. Turkey is the center of origin of many taxa, and its exceptionally diverse topography has provided refugia in which many species have survived in spite of harsh geological and climatic changes. The great biological importance of Turkey is evident from the remarkable variety of arthropods in Turkey. Nevertheless, the fauna of Turkey has not been thoroughly studied and documented.

The genus *Cortodera* was described by Mulsant (1863) with the type species *Grammoptera spinosula* Mulsant, 1839 from Rhône: Monts-d'Or lyonnais (France). *Grammoptera spinosula* Mulsant, 1839 is a synonym of *Leptura humeralis* Schaller, 1783 from Halle (Germany). So the type species of genus *Cortodera* is *Cortodera humeralis* (Schaller, 1783). The genus belongs to the tribe Rhagiini of the subfamily Lepturinae (Coleoptera: Cerambycidae).

Cortodera Mulsant, 1863 is distributed in Holarctic region. According to Bezark & Monné (2013), the genus includes a total of 20 species (22 species group taxa) in Nearctic region (America, Canada and Mexico). Löbl & Smetana (2010) mentioned 45 species (69 species group taxa) for Palaearctic Region except North Africa. According to the latest work of Danilevsky (2015a), the genus includes a total of 53 species (135 species group taxa) in Palaearctic Region. So, the genus contains a total of 73 species (157 species group taxa) worldwide.

Chiefly, there was no work focused on *Cortodera* in Turkey until 2003. Özdikmen (2003a,b) included the lists of known species group taxa of *Cortodera* in Turkey as a total of 25 taxa. Özdikmen & Turgut (2008) stated *Cortodera differens* is a new taxon for Turkey. Löbl & Smetana (2010) mentioned 19 species (21 species group taxa) for Turkey. So, the catalogic list of Löbl & Smetana (2010) was not reflected the real status of *Cortodera* in Turkey. For example, *Cortodera rosinae* Pic, 1902, *Cortodera zoiai* Pesarini & Sabbadini, 2009 and *Cortodera flavimana corallipes* Pesarini & Sabbadini, 2009 were not included in their Palaearctic catalogue. *Cortodera rosinae* was described by Pic from Turkey (Konya province) in 1902. *Cortodera zoiai* and *Cortodera flavimana corallipes* were described by Pesarini & Sabbadini from Turkey (İzmir province) in 2009. In addition, the subspecies *Cortodera pumila meltemae* was described by Özdikmen et al. (2012) from Turkey (Ankara province), and *Cortodera aksarayensis* was

described by Özdikmen & Özbek (2012) from Turkey (Aksaray province) as new taxa after Löbl & Smetana (2010). Recently, *Cortodera rufipes* (Kraatz, 1876) that was described from Turkey (İzmir province), was accepted by Özdikmen et al. (2014) as a separate species. *Cortodera flavimana corallipes* that was described by Pesarini & Sabbadini (2009) from Turkey (İzmir province), was regarded by Özdikmen & Cihan (2015) as a synonym of *Cortodera rufipes* (Kraatz, 1876). Recently Danilevsky (2015b) described 2 new species and 18 new subspecies from Turkey.

According to the latest work of Danilevsky (2015a), the genus includes a total of 24 species (51 species group taxa) in Turkey. Some opinions of Danilevsky (2015a) about acceptance as species or subspecies of known species group taxa in Turkey, however, do not accept according to findings of the present work. Moreover, during the study of the collected Cerambycidae specimens in my collection, I identified two female specimens belonging to a new species that collected from Çankırı province in Northern part of Central Anatolian Region of Turkey, and a male specimen belonging to a new subspecies that collected from Mardin province in Dicle part of South Eastern Anatolian Region of Turkey, of *Cortodera Mulsant*, 1863 which will be described in the present text.

MATERIAL AND METHODS

Samples were carried out among 1966 and 1997–2015 in various parts of Turkey. Two females among them are measured and described as *C. neslihanæ* sp. nov. from Çankırı province in Northern part of Central Anatolian Region of Turkey. Also a male among them is measured and described as *C. orientalis didemæ* ssp. nov. from Mardin province in Dicle part of South Eastern Anatolian Region of Turkey.

Information in the present text is given in following order:

Species reported from Turkey are given alphabetically within the genus. The Turkish distribution patterns for each species are given only concerning provinces. Turkish endemic taxa are marked with the sign (*).

The type information for each species is arranged according to Tavakilian (2015). For distributional data of the species, Özdikmen (2007, 2008a, b, 2011, 2013) for Turkey, and Löbl & Smetana (2010) and Danilevsky (2015a) for Palaearctic region are chiefly used in the text. All specimens are deposited at Gazi University of Ankara (Turkey).

RESULTS

Cortodera neslihanæ sp. nov. (Fig. 1)

Type material. Holotype ♀: Turkey: Anatolia: Çankırı: Orta: Elden village, 40° 39' 22" N; 32° 58' 21" E, 21.V.2014, 1446 m, leg. N. Silkin. **Paratype** ♀: The same as holotype. The specimens were deposited in Gazi University in Ankara (Turkey).

Description. Female (holotype): Body length: 9 mm.

Coloration: Some parts of legs (fore femora and tibiae completely, middle and hind femora except for apical parts) and elytra except for black sutural and lateral stripes dark reddish-brown. The remaining parts of the body quite black.

Pubescence: Body clothed with golden-yellow hairs. Head and pronotum with rather dense and long, semi-recumbent and sometimes erect hairs. First antennal segment with rather dense, semi-recumbent hairs. 2-4th and even 5th antennal segments with rather dense, less long, recumbent hairs. The remaining antennal segments with dense, short and recumbent hairs. Elytra and scutellum with rather dense, semi-recumbent hairs that less longer than the pubescence of head and

pronotum. Underside of the body clothed with dense, recumbent hairs completely.

Punctuation: Head and pronotum with very dense, distinct punctation. Pronotum with a glabrous and impunctate, small area on the posterior half of median line. Elytra with rather regular, deeply punctate. The punctation of head and pronotum denser but smaller than that of elytra. Elytra with robust punctation in basal portion, gradually weakened but still distinct to apex. Scutellum distinctly punctate.

Moreover, apical segment of maxillary palp broader towards the apex, flattened, slightly securiforme. 3rd antennal segment smaller than 5th segment.

Male. Unknown.

Remarks. This new species is closely related to *C. flavimana* that described from İstanbul province in Turkey (Figs. 1-2). It is easily distinguished from *C. flavimana* by the coloration of the legs (only profemora and protibiae entirely reddish in *C. flavimana*, while profemora and protibiae entirely dark reddish-brown, and also most parts of middle and hind femora except for black apical parts dark reddish-brown in the new species) and coloration of elytra: (yellowish in *C. flavimana*, dark reddish-brown in *C. neslihanae*). In addition, the third antennal segment is as long as the fifth segment in *C. flavimana*, while the third antennal segment is shorter than fifth segment in the new species.

Etymology. The specific epithet is dedicated to my student Neslihan Silkin (Turkey) who collected the holotype specimen of the new species.

***Cortodera orientalis didemae* ssp. nov.** (Fig. 4)

Type material. Holotype ♂: Turkey: Anatolia: Mardin prov., 4.V.1966, leg. A. Demirtola. The specimen was deposited in Nazife Tuatay Plant Protection Museum (Turkey, Ankara).

Description. Male (holotype): Body length: 9,25 mm.

Coloration: Mouth parts (except for dark colored apical parts of mandibles, and black colored last segments of maxillary and labial palpes), labrum, clypeus, some parts of legs (fore femora completely, middle and hind femora except for black colored apical parts, all tibiae, fore tarsi completely, middle and hind tarsi except for darker colored claw segments) and elytra completely reddish-brown. The remaining parts of the body quite black.

Pubescence: Body clothed with golden-yellow hairs. Head and pronotum with rather dense and long, semi-recumbent and sometimes erect hairs. First antennal segment with rather dense, semi-recumbent hairs. 2-3rd antennal segments with rather dense, less long, recumbent hairs. The remaining antennal segments with densely, short and recumbent hairs. Scutellum glabrous. Elytra with rather dense, long, semi-recumbent hairs that less longer than the pubescence of head and pronotum. Underside of the body clothed with dense, recumbent hairs completely.

Punctuation: Head and pronotum with very dense, distinct punctation. Pronotum with a glabrous and impunctate median line. Elytra with rather regular, deeply punctate. The punctation of head and pronotum denser but smaller than that of elytra. Scutellum impunctate. Elytra with robust punctation in basal portion, gradually weakened but still distinct to apex.

Moreover, apical segment of maxillary palp broader towards the apex, flattened, slightly securiforme. 3rd antennal segment as long as 5th segment.

Female. Unknown.

Remarks. This new subspecies is a geographical race of *Cortodera orientalis* that was described by Adlbauer (1988) from Central Taurus (Osmaniye province) in Southern Anatolia (Figs. 3-4). It is easily distinguished from *C. orientalis*

orientalis by the coloration of legs: black colored apical parts of middle and hind femora are smaller than that of *C. orientalis orientalis*, all tibiae are reddish-brown completely (middle and hind tibiae are black completely in *C. orientalis orientalis*), and almost all tarsi (except for darker colored claw segments of middle and hind tarsi) are reddish-brown (all tarsi are black completely in *C. orientalis orientalis*), and the coloration of antennae: first four antennal segments are reddish-brown completely, and 5-11th segments are dark colored completely (first two antennal segments are reddish-brown completely, and 3rd and 4th antennal segments are black in basal half, and 5-11th segments are black completely in *C. orientalis orientalis*).

Etymology. The subspecific epithet is dedicated to my student Didem Coral Şahin (Turkey).

The updated list of *Cortodera* species from Turkey is provided below. Also, information of type material, range and Turkish distribution are given. Turkish endemic taxa are marked with the sign (*).

Subfamily Lepturinae Latreille, 1802
Tribe Rhagiini Kirby, 1837

Genus *Cortodera* Mulsant, 1863: 572

Type species: *Grammoptera spinosula* Mulsant, 1839: 290 (= *Leptura humeralis* Schaller, 1783)

****C. aksarayensis* Özdikmen & Özbek, 2012: 931**

Type material information: Holotype ♂, collection H. Özdikmen, Zoological Museum of Gazi University, Ankara [Type locality “Aksaray” (Turkey)].

Range: Asia: Turkey.

Turkish distribution: Aksaray, Antalya, İçel, Konya, Malatya, Muş and Sivas provinces.

Remarks: This species is endemic to Turkey now. It is regarded by Danilevsky (2015) as a subspecies of *C. colchica* Reitter, 1890.

***C. alpina* Ménétrés, 1832: 230 (*Pachyta*)**

***C. alpina armeniaca* Pic, 1898a: 114 (*umbripennis* var.)**

Type material information: Lectotype ♀, ex collection M. Pic, Muséum National d'Histoire Naturelle, Paris [Type locality “Arax Valley” (Armenia)].

Range: Asia: Armenia, Turkey.

Turkish distribution: Ardahan, Artvin, Erzincan, Erzurum, Iğdır, Kars, Muş, Tunceli and Van provinces.

****C. alpina rosinae* Pic, 1902: 8 (*xanthoptera* var.)**

Type material information: Holotype, ex collection M. Pic, Muséum National d'Histoire Naturelle, Paris [Type locality “Akşehir” (Turkey: Konya)].

Range: Asia: Turkey.

Turkish distribution: İçel and Konya provinces.

Remarks: This subspecies is endemic to Turkey now.

****C. alpina xanthoptera* Pic, 1898a: 114 [RN] (*umbripennis* var.)**

Type material information: Syntypes, ex collection K. L. Escherich, Deutsches Entomologisches Institut, Eberswalde as *Cortodera flavimana* var. *flavipennis* Ganglbauer, 1897 [Type locality “Ankara” (Turkey)].

Range: Asia: Turkey.

Turkish distribution: Ankara province.

Remarks: This subspecies is endemic to Turkey now.

****C. alpina tatvanensis* Danilevsky, 2015: 1065**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Tatvan env.” (Turkey: Bitlis)].

Range: Asia: Turkey.

Turkish distribution: Bitlis province.

Remarks: This subspecies is endemic to Turkey now.

Known other subspecies of *C. alpina*:

C. alpina alpina Ménériés, 1832: 230 (*Pachyta*) **Europe:** Russia: South European Territory (Dagestan) **Asia:** Azerbaijan, Georgia. ***C. alpina baksaniensis*** Danilevsky, 2014: 199 **Europe:** Russia: South European Territory. ***C. alpina fischensis*** Starck, 1894: 11 **Europe:** Russia: South European Territory (Kavkaz). ***C. alpina gudissensis*** Danilevsky, 2013: 28 **Asia:** Georgia. ***C. alpina matusiaki*** Danilevsky, 2014: 200 **Europe:** Russia: South European Territory **Asia:** Georgia. ***C. alpina rosti*** Pic, 1892: lxxxiii **Europe:** Russia: South European Territory (Kavkaz). ***C. alpina starcki*** Reitter, 1888: 280 **Europe:** Russia: South European Territory (Kavkaz) **Asia:** Georgia. ***C. alpina swanorum*** Danilevsky, 2014: 203 **Asia:** Georgia. ***C. alpina umbripennis*** Reitter, 1890: 245 **Europe:** Russia: South European Territory **Asia:** Azerbaijan, Armenia, Georgia, Iran. ***C. alpina zekarensis*** Danilevsky, 2014: 203 **Asia:** Georgia.

****C. cirsii* Holzschuh, 1975: 82**

Type material information: Holotype ♂, collection C. Holzschuh, Villach [Type locality “Nurdağı pass” (Turkey: Adana)].

Range: Asia: Turkey.

Turkish distribution: Adana, Konya, Niğde and Osmaniye provinces.

Remarks: This species is endemic to Turkey now.

***C. colchica* Reitter, 1890: 246 (*Cartodera*)**

****C. colchica aestiva* Sama & Rapuzzi, 1999: 466 (*Cortodera aestiva*)**

Type material information: Holotype ♂, collection G. Sama, Cesena [Type locality “Sarıkamış” (Turkey: Kars)].

Range: Asia: Turkey.

Turkish distribution: Kars province.

Remarks: This subspecies is endemic to Turkey now.

***C. colchica colchica* Reitter, 1890: 246 (*Cartodera*)**

Type material information: Syntypes, ex collection Edmund Reitter, Magyar Természettudományi Múzeum, Budapest [Type locality “Ordubad” (Armenia: Nakhchivan)].

Synonyms: *ordubadensis* Reitter, 1890: 246 (*Cartodera colchica* var.) [Armenia: Nakhichevan: Ordubad]; *rutilipes* Reitter, 1890: 246 (*Cartodera colchica* var.) [Armenia: Nakhichevan: Ordubad]; *pygidialis* Reitter, 1890: 246 (*Cartodera colchica* var.) [Armenia: Nakhichevan: Ordubad]; *truncatipennis* Pic, 1929: 119 [DA] [Turkey: Trabzon]; *atropyga* Pic, 1929: 119 [DA] (*Cortodera truncatipennis* var.) [Turkey: Trabzon]; *distincta* Pic, 1933: 6 (*Cortodera colchica* var.) [Caucasus]; *lederi* Pic, 1933: 6 (*Cortodera colchica* var.) [Armenia: Nakhichevan: Araxesthal].

Range: Europe: Russia: South European Territory **Asia:** Azerbaijan, Armenia, Georgia, Iran, Lebanon, Syria, Turkey.

Turkish distribution: Adana, Adıyaman, Aksaray, Ankara, Antalya, Artvin, Bayburt, Bingöl, Burdur, Erzurum, Hakkari, Isparta, İçel, Kayseri, Konya and Sivas provinces.

****C. colchica erzurumensis* Danilevsky, 2015: 1058**

Type material information: Holotype ♀, collection M. Danilevsky, Moscow [Type locality “Palandöken Mts.: Tekederesi village” (Turkey: Erzurum)].

Range: Asia: Turkey.

Turkish distribution: Erzurum province.

Remarks: This subspecies is endemic to Turkey now.

****C. colchica porsukensis* Danilevsky, 2015: 1060**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Porsuk Dam” (Turkey: Eskişehir)].

Range: Asia: Turkey.

Turkish distribution: Eskişehir province.

Remarks: This subspecies is endemic to Turkey now.

Known other subspecies of *C. colchica*:

C. colchica aishkha Danilevsky, 2014: 180 **Europe:** Russia: South European Territory. ***C. colchica bulungensis*** Danilevsky, 2014: 181 **Europe:** Russia: South European Territory. ***C. colchica danczenkoi*** Danilevsky, 1985: 139 [1987: 615] **Asia:** Azerbaijan (Talysh). ***C. colchica deyrollei*** Pic, 1894: 66 **Asia:** Georgia. ***C. colchica dilizhanica*** Danilevsky, 2014: 178 **Asia:** Armenia. ***C. colchica erevanica*** Danilevsky, 2014: 177 **Asia:**

Armenia. *C. colchica kalashiani* Danilevsky, 2000: 39 **Asia:** Armenia. *C. colchica murzini* Danilevsky, 2014: 181 **Europe:** Russia: South European Territory. *C. colchica ossetica* Danilevsky, 2014: 181 **Europe:** Russia: South European Territory. *C. colchica ponomarenkoi* Danilevsky, 2014: 179 **Asia:** Azerbaijan. *C. colchica psebayensis* Danilevsky, 2014: 180 **Europe:** Russia: South European Territory. *C. colchica pseudalpina* Plavilstshikov, 1936: 278 **Asia:** Georgia.

***C. differens* Pic, 1898b: 50**

***C. differens magdae* Danilevsky, 2012: 916**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Eminska Planina” (Bulgaria)].

Range: **Europe:** Bulgaria, Romania, Turkey **Asia:** Turkey.

Turkish distribution: European Turkey, Ankara, Antalya and Konya provinces.

Known other subspecies of *C. differens*:

C. differens differens Pic, 1898: 50 **Europe:** Greece, Romania.

****C. discolor* Fairmaire, 1866: 277**

****C. discolor ankarensis* Danilevsky, 2015: 1063**

Type material information: Holotype ♀, collection M. Danilevsky, Moscow [Type locality “Çamlıdere” (Turkey: Ankara)].

Range: **Asia:** Turkey.

Turkish distribution: Ankara province.

Remarks: This subspecies is endemic to Turkey now.

****C. discolor bitlisiensis* Danilevsky, 2015: 1065**

Type material information: Holotype ♀, collection M. Danilevsky, Moscow [Type locality “Tatvan env.” (Turkey: Bitlis)].

Range: **Asia:** Turkey.

Turkish distribution: Bitlis province.

Remarks: This subspecies is endemic to Turkey now.

****C. discolor discolor* Fairmaire, 1866: 277**

Type material information: Syntypes, ex collection L. Fairmaire, Muséum National d’Histoire Naturelle, Paris [Type locality “Bozdağ” (Turkey: İzmir)].

Synonyms: *testaceipes* Pic, 1898: 112 (*Cortodera discolor* var.) [?Turkey: İzmir: Bozdağ].

Range: **Asia:** Turkey.

Turkish distribution: Aksaray, Antalya, Hatay, İçel, İzmir, Konya, Malatya, Manisa and Niğde provinces.

Remarks: This subspecies is endemic to Turkey now.

****C. discolor gumushanensis* Danilevsky, 2015: 1064**

Type material information: Holotype ♀, collection M. Danilevsky, Moscow [Type locality “Pass SW Yeniyol” (Turkey: Gümüşhane)].

Range: **Asia:** Turkey.

Turkish distribution: Gümüşhane province.

Remarks: This subspecies is endemic to Turkey now.

***C. flavimana* Wlittl, 1838: 471 (*Leptura villosa* var.) (Fig. 2)**

****C. flavimana angorensis* Danilevsky, 2015: 1051**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Çamlıdere” (Turkey: Ankara)].

Range: **Asia:** Turkey.

Turkish distribution: Ankara province.

Remarks: This subspecies is endemic to Turkey now.

***C. flavimana flavimana* Wlittl, 1838: 471 (*Leptura villosa* var.)**

Type material information: Syntypes ♂ & ♀, ex collection Joseph Wlittl, Naturhistorisches Museum Wien [Type locality “İstanbul env.” (Turkey)].

Range: **Europe:** Austria, Bulgaria, Greece, Hungary, Macedonia, Romania, Slovakia, Turkey, Serbia & Montenegro **Asia:** Turkey.

Turkish distribution: Adana, Afyon, Aksaray, Ankara, Antalya, Artvin, Bayburt, Bolu, Bursa, Çankırı, Düzce, Erzurum, Gümüşhane, Isparta, İçel, İstanbul, İzmir,

Kahramanmaraş, Karabük, Kars, Kastamonu, Kayseri, Kirikkale, Kırklareli, Kocaeli, Konya, Niğde, Rize, Samsun, Sinop, Sivas, Yozgat and Zonguldak provinces.

****C. flavimana inonuensis* Danilevsky, 2015: 1050**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “İnönü” (Turkey: Eskişehir)].

Range: Asia: Turkey.

Turkish distribution: Bursa, Eskişehir and Kütahya provinces.

Remarks: This subspecies is endemic to Turkey now.

****C. flavimana karsensis* Danilevsky, 2015: 1052**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Sarıkamış env.” (Turkey: Kars)].

Range: Asia: Turkey.

Turkish distribution: Ardahan and Kars provinces.

Remarks: This subspecies is endemic to Turkey now.

****C. flavimana oezdikmeni* Danilevsky, 2015: 1053**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Çağlayancerit” (Turkey: Kahramanmaraş)].

Range: Asia: Turkey.

Turkish distribution: Kahramanmaraş province.

Remarks: This subspecies is endemic to Turkey now.

****C. flavimana sergeyi* Danilevsky, 2015: 1053**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Pülümür env.” (Turkey: Tunceli)].

Range: Asia: Turkey.

Turkish distribution: Tunceli province.

Remarks: This subspecies is endemic to Turkey now.

****C. flavimana sultanensis* Danilevsky, 2015: 1055**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Sultan Mts.” (Turkey: Afyonkarahisar and Konya)].

Range: Asia: Turkey.

Turkish distribution: Afyonkarahisar and Konya provinces.

Remarks: This subspecies is endemic to Turkey now.

****C. flavimana torosensis* Danilevsky, 2015: 1055**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Mut env.” (Turkey: İçel)].

Range: Asia: Turkey.

Turkish distribution: Adana and İçel provinces.

Remarks: This subspecies is endemic to Turkey now.

****C. flavimana zoiai* Pesarini & Sabbadini, 2009: 16 (*Cortodera zoiai*)**

Type material information: Holotype ♂, collection Carlo Pesarini & Andrea Sabbadini, Milano [Type locality “Kozak” (Turkey: İzmir)].

Range: Asia: Turkey.

Turkish distribution: İzmir province.

Remarks: This subspecies is endemic to Turkey now.

Known other subspecies of *C. flavimana*:

C. flavimana schurmanni Sama, 1997: 107 **Europe:** Greece (Peloponnese).

***C. humeralis* Schaller, 1783: 297 (*Leptura*)**

***C. humeralis humeralis* Schaller, 1783: 297 (*Leptura*)**

Type material information: Holotype, ex collection Johann Gottlob Schaller (Waisenhaus Halle a. S.) [Type locality “Halle” (Germany)].

Synonyms: *quadriguttata* Herbst, 1786: 171 (*Leptura*) [Germany: Saxe-Anhalt: Halle]; *suturalis* Fabricius, 1787: 159 (*Leptura*) [Germany: Saxe-Anhalt: Halle]; *quadrinotata* Gmelin, 1790: 1873 (*Leptura*) [Germany: Brandenburg: Berlin]; *schalleri* Gmelin, 1790: 1874 (*Leptura*) [Germany: Saxe-Anhalt: Halle]; *spinosa* Mulsant, 1839: 290 (*Grammoptera*) [France: Rhone: Monts-d'Or lyonnais]; *inumeralis* Pic, 1892: 140 (*Cortodera humeralis* var.) [France: Auvergne (Puy-de-Dôme)]; *nicolasi* Bedel, 1901: 369 (*Cortodera humeralis* var.) [France: Yvelines]; *discoidalis* Pic, 1931: 6 (*Cortodera*

humeralis var.) [France: Auvergne (Puy-de-Dôme): Royat]; *apicenotata* G. Schmidt, 1951: 12 (*Cortodera humeralis* f.) [Austria: Tyrol].

Range: Europe: Austria, Belgium, Bosnia, Herzegovina, Bulgaria, Croatia, Russia: Central European Territory, Czech Republic, France, Germany, Greece, Hungary, Italy, Macedonia, Moldavia, Netherland, Poland, Romania, Slovakia, Spain, Russia: South European Territory, Switzerland, Turkey, Ukraine, Serbia & Montenegro **Asia:** Turkey.

Turkish distribution: Ankara, Artvin, Bolu, Kirklareli and Rize provinces.

Known other subspecies of *C. humeralis*:

C. humeralis aspromontana G. Müller, 1948: 61 **Europe:** Italy, Greece.

****C. imrasanica* Sama & Rapuzzi, 1999: 464**

Type material information: Holotype ♂, collection G. Sama, Cesena [Type locality “Çakılı pass” (Turkey: Antalya)].

Range: Asia: Turkey.

Turkish distribution: Antalya, Burdur and Isparta provinces.

Remarks: This species is endemic to Turkey now.

****C. kadleci* Danilevsky, 2015: 1061**

Type material information: Holotype ♀, collection M. Danilevsky, Moscow [Type locality “Tercan” (Turkey: Erzincan)].

Range: Asia: Turkey.

Turkish distribution: Erzincan province.

Remarks: This species is endemic to Turkey now.

****C. longipilis* Pic, 1898: 50**

Type material information: Holotype ♂, ex collection G. Kraatz > M. Pic, Muséum National d’Histoire Naturelle, Paris [Type locality “Syria” but undoubtedly mislabeled, should be Turkey: ?Hatay].

Synonyms: *rubrofemorata* Pic, 1898: 113 (*Cortodera longipilis* var.) [not Syria, should be Turkey]; *tauricola* Pic, 1908: 3 (*Cortodera longipilis* var.) [Turkey: Taurus Mts.].

Range: Asia: Turkey.

Turkish distribution: ?Hatay province.

Remarks: This species is endemic to Turkey now.

****C. napolovi* Danilevsky, 2015: 1061**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality “Buğlan pass” (Turkey: Muş)].

Range: Asia: Turkey.

Turkish distribution: Muş province.

Remarks: This species is endemic to Turkey now.

****C. neslihanæ* Özdikmen sp. nov. (Fig. 1)**

Type material information: Holotype ♀, collection H. Özdikmen, Zoological Museum of Gazi University, Ankara [Type locality “Orta: Elden village” (Turkey: Çankırı)].

Range: Asia: Turkey.

Turkish distribution: Çankırı province.

Remarks: This species is endemic to Turkey now.

****C. obscurans* Pic, 1894: 116 (*semilivida* var.)**

Type material information: Holotype, ex collection M. Pic, Muséum National d’Histoire Naturelle, Paris [Type locality “Akbez” (Turkey: Hatay)].

Synonyms: *flavescens* Pic, 1894: 116 (*Cortodera obscurans* var.) [Turkey: Hatay: Akbez]; *fulvipennis* Pic, 1898: 50 (*Cortodera obscurans* var.) [Turkey: Hatay: Akbez].

Range: Asia: Turkey.

Turkish distribution: Hatay province.

Remarks: This species is endemic to Turkey now.

****C. omophloides* Holzschuh, 1975: 77**

Type material information: Holotype ♀, collection C. Holzschuh, Villach [Type locality “Çamlyayla” (Turkey: İçel)].

Range: Asia: Turkey.

Turkish distribution: Antalya, İçel and Osmaniye provinces.

Remarks: This species is endemic to Turkey now.

****C. orientalis* Adlbauer, 1988: 264** (*humeralis* ssp.) (Fig. 3)

****Cortodera orientalis didemae* ssp. nov.** (Fig. 4)

Type material information: Holotype ♂, Nazife Tuatay Plant Protection Museum, Ankara [Type locality "Mardin" (Turkey)].

Range: Asia: Turkey.

Turkish distribution: Mardin.

Remarks: This subspecies is endemic to Turkey now.

****C. orientalis orientalis* Adlbauer, 1988: 264** (*humeralis* ssp.)

Type material information: Holotype ♂, collection K. Adlbauer, Graz [Type locality "Nurdağı pass" (Turkey: Osmaniye)].

Range: Asia: Turkey.

Turkish distribution: Ankara, Antalya, Bolu, Burdur, Isparta and Osmaniye provinces.

Remarks: This subspecies is endemic to Turkey now.

***C. pseudomophlus* Reitter, 1889: 40**

Type material information: Syntypes ♂ & ♀, ex collection Edmund Reitter, Magyar Természettudományi Múzeum, Budapest [Type locality "Ordubad" (Armenia: Nakhchivan)].

Range: Asia: Armenia, Azerbaijan, Iran, Turkmenistan, Turkey.

Turkish distribution: Erzurum, Kahramanmaraş and Van provinces.

***C. pumila* Ganglbauer, 1882: 710**

****C. pumila meltemae* Özdikmen, Mercan & Cihan, 2012: 746**

Type material information: Holotype ♂, collection H. Özdikmen, Zoological Museum of Gazi University, Ankara [Type locality "Kızılcahamam" (Turkey: Ankara)].

Range: Asia: Turkey.

Turkish distribution: Aksaray, Ankara, Bilecik, Bolu, Eskişehir, Kars, Kastamonu, Sivas, Tokat and Zonguldak provinces.

Remarks: This subspecies is endemic to Turkey now.

***C. pumila tournieri* Pic, 1895: 75** (*Cortodera tournieri*)

Type material information: Syntypes ♂ & ♀, ex collection H. Tournier > M. Pic, Muséum National d'Histoire Naturelle, Paris [Type locality "Persati" (Caucasus: Georgia)].

Range: Asia: Armenia, Georgia, Turkey.

Turkish distribution: Artvin and Kars provinces.

Known other subspecies of *C. pumila*:

***C. pumila crataegi* Holzschuh, 1986: 121** **Asia:** Iran. ***C. pumila pumila* Ganglbauer, 1882: 710** **Europe:** Russia: South European Territory **Asia:** Azerbaijan, Armenia, Georgia.

****C. ranunculi* Holzschuh, 1975: 80**

Type material information: Holotype ♂, collection C. Holzschuh, Villach [Type locality "Varto" (Turkey: Muş)].

Range: Asia: Turkey.

Turkish distribution: Muş province.

Remarks: This species is endemic to Turkey now.

****C. rubripennis* Pic, 1891: 102** (*discolor* var.)

Type material information: Holotype, ex collection M. Pic, Muséum National d'Histoire Naturelle, Paris [Type locality "Akbez" (Turkey: Hatay)].

Synonyms: *obscura* Pic, 1898: 49 (*Cortodera rubripennis* var.) [Turkey: Hatay: Akbez].

Range: Asia: Turkey.

Turkish distribution: Adana, Adıyaman, Hatay and Konya provinces.

Remarks: This species is endemic to Turkey now.

****C. rufipes* Kraatz, 1876: 344** (*Grammoptera*)

Type material information: Holotype, ex collection G. Kraatz, Deutsches Entomologisches Institut, Eberswalde [Type locality "Smyrna" (Turkey: İzmir)].

Synonyms: *corallipes* Pesarini & Sabbadini, 2009: 17 (*Cortodera flavimana* ssp.) [Turkey: Erzurum: Aşkale].

Range: Asia: Turkey.

Turkish distribution: Aksaray, Ankara, Artvin, Bursa, Çankırı, Erzurum, İzmir, Kahramanmaraş, Kayseri and Konya provinces.

Remarks: This species is endemic to Turkey now. It is regarded as a subspecies of *C. flavimana* Walzl, 1838.

****C. semilivida* Pic, 1892: cxcii**

Type material information: Syntypes ♂♂ & ♀♀, ex collection M. Pic, Muséum National d'Histoire Naturelle, Paris [Type locality "Akbez" (Turkey: Hatay)].

Range: Asia: Turkey.

Turkish distribution: Hatay province.

Remarks: This species is endemic to Turkey now.

****C. simulatrix* Holzschuh, 1975: 83**

Type material information: Holotype ♂, collection C. Holzschuh, Villach [Type locality "Şavşat" (Turkey: Artvin)].

Range: Asia: Turkey.

Turkish distribution: Artvin province.

Remarks: This species is endemic to Turkey now.

***C. syriaca* Pic, 1901: 90**

***C. syriaca nigroapicalis* Holzschuh, 1981: 95**

Type material information: Holotype ♂, collection C. Holzschuh, Villach [Type locality "Uludere, Tanin pass" (Turkey: Hakkâri)].

Range: Asia: Iran, Turkey.

Turkish distribution: Hakkâri province.

***C. syriaca syriaca* Pic, 1901: 90**

Type material information: Holotype, ex collection M. Pic, Muséum National d'Histoire Naturelle, Paris [Type locality "Syria"].

Synonyms: *aureopubens* Pic, 1913: 178 (*Cortodera syriaca* var.) [Lebanon: Lebanon Mts.]; *korbi* Pic, 1914: 4 [DA] (*Cortodera syriaca* var.) [Turkey: Konya: Akşehir].

Range: Asia: Azerbaijan, Armenia, Lebanon, Syria, Turkey.

Turkish distribution: Adıyaman, Aksaray, Ankara, İçel, Kahramanmaraş, Muş provinces.

****C. uniformis* Holzschuh, 1975: 79**

Type material information: Holotype ♂, collection C. Holzschuh, Villach [Type locality "Gümüşhane" (Turkey)].

Range: Asia: Turkey.

Turkish distribution: Erzurum and Gümüşhane provinces.

Remarks: This species is endemic to Turkey now.

****C. wewalkai* Holzschuh, 1995: 9**

Type material information: Holotype ♂, collection C. Holzschuh, Villach [Type locality "Tekir" (Turkey: İçel)].

Range: Asia: Turkey.

Turkish distribution: İçel province.

Remarks: This species is endemic to Turkey now.

****C. wittmeri* Holzschuh, 1995: 9**

****C. wittmeri akshehrensensis* Danilevsky, 2015: 1043**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality "Akşehir: Yeşilköy env." (Turkey: Konya)].

Range: Asia: Turkey.

Turkish distribution: Konya province.

Remarks: This subspecies is endemic to Turkey now.

****C. wittmeri gevashensis* Danilevsky, 2015: 1046**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality "Gevaş" (Turkey: Van)].

Range: Asia: Turkey.

Turkish distribution: Van province.

Remarks: This subspecies is endemic to Turkey now.

****C. wittmeri malatyaensis* Danilevsky, 2015: 1045**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality "Eskiköy village" (Turkey: Malatya)].

Range: Asia: Turkey.

Turkish distribution: Malatya province.

Remarks: This subspecies is endemic to Turkey now.

****C. wittmeri sivasensis* Danilevsky, 2015: 1044**

Type material information: Holotype ♂, collection M. Danilevsky, Moscow [Type locality "Karabayır pass" (Turkey: Sivas)].

Range: Asia: Turkey.

Turkish distribution: Erzurum and Sivas provinces.

Remarks: This subspecies is endemic to Turkey now.

****C. wittmeri wittmeri* Holzschuh, 1995: 9**

Type material information: Holotype ♂, collection C. Holzschuh, Villach [Type locality "Ulukışla" (Turkey: Niğde)].

Range: Asia: Turkey.

Turkish distribution: Aksaray, Antalya, İçel, Konya and Niğde provinces.

Remarks: This subspecies is endemic to Turkey now.

DISCUSSION

Löbl & Smetana (2010) mentioned 45 species (69 species group taxa) for Palaearctic Region and thereby 19 species (21 species group taxa) for Turkey. As the latest work for Palaearctic catalogue, Danilevsky (2015a) stated 53 species (135 species group taxa) for Palaearctic Region and thereby 24 species (51 species group taxa) for Turkey.

The present work showed that all members of updated Turkish *Cortodera* consist of 27 species (52 species group taxa) with the new species and subspecies.

Danilevsky (2015a) accepted *C. aksarayensis* as a subspecies of *C. colchica* and *C. rufipes* as a subspecies of *C. flavimana*. Both taxa are separate species certainly. Also he gave *C. flavimana corallipes* of which synonymy with *C. rufipes* was published by Özdikmen & Cihan (2015) recently, as a valid subspecies of *C. flavimana*.

According to present work, 19 of 27 species are endemic to Turkey. In other words, endemism ratio of the known species of Turkish *Cortodera* is high (70%).

According to Danilevsky (2015), only 16 species of the known species of Palaearctic *Cortodera* except the members of Turkish *Cortodera* are endemic to different countries. These are: *C. bamiyana* Danilevsky, 2014: 256 **Asia:** Afghanistan. *C. farsensis* Danilevsky, 2014: 255 **Asia:** Iran. *C. hroni* Danilevsky, 2012: 1 **Europe:** Bulgaria. *C. ivanovi* Danilevsky, 2013: 218 **Asia:** Kazakhstan. *C. kazaryani* Danilevsky, 2014: 163 **Asia:** Armenia. *C. khatchikovi* Danilevsky, 2001: 13 **Europe:** Russia: South European Territory. *C. kochi* Pic, 1935: 4 **Asia:** Israel. *C. kokpektensis* Danilevsky, 2007: 47 **Asia:** Kazakhstan. *C. komarovi* Danilevsky, 1996: 63 **Asia:** Kazakhstan. *C. metallica* Holzschuh, 2003: 152 **Asia:** China: Sichuan. *C. moldovana* Danilevsky, 1996: 64 **Europe:** Moldavia. *C. neali* Danilevsky, 2004: 2 **Asia:** Iran. *C. tatianae* Miroshnikov, 2011: 53 **Asia:** Azerbaijan. *C. turgaica* Danilevsky, 2001: 9 **Asia:** Kazakhstan. *C. ussuriensis* Tsherepanov, 1978: 101 **Asia:** Russia: Far East. *C. vicina* Pic, 1914: 4 **Asia:** Lebanon. Accordingly, real endemism ratio of the known species of Palaearctic *Cortodera* with the Turkish members is high (66%).

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Figure 1. *Cortodera neslihanæ* sp. nov. (holotype ♀) from Çankırı prov.: Orta, Elden village.



Figure 2. *Cortodera flavimana flavimana* from Çankırı prov.: Şabanözü, Orta road.

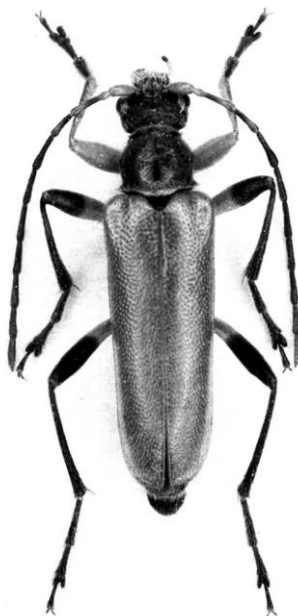


Figure 3. *Cortodera orientalis orientalis* Adlbauer, 1988 (holotype ♂, from Adlbauer, 1988).



Figure 4. *Cortodera orientalis didemae* ssp. nov. (holotype ♂).