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New and poorly known species of the genus *Cortodera* Mulsant, 1863 (Coleoptera, Cerambycidae) from Kazakhstan

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Key words: Coleoptera, Cerambycidae, taxonomy, new species, new subspecies, Kazakhstan.
Abstract: *Cortodera komarovi* Danilevsky, 1996, **stat. rest.** is restored as a species. *C. k. solodovnikovi,* **ssp. n.** is described from Aktolagay Ridge. *C. k. romantzovi,* **ssp. n.** is described from near Aktobe (Aktyubinsk) in north-west Kazakhstan. *C. k. sarysuensis* **ssp. n.** is described from Karaganda Region in Central Kazakhstan (Taldy-Manak river southwards Zhana-Arka and Kokshetau Mt. near Tersakan river). *Cortodera ivanovi,* **sp. n.** is described from Emba river valley in west Kazakhstan. *C. turgaica* Danilevsky, 1996, **stat. n.** is upgraded to species level.

Several specimens of extremely rare *Cortodera* species were recently collected in Kazakhstan. New materials allow better understanding the nature of several local forms and descriptions of new taxa.

Most of photographs are prepared by the author, with the exception of *Cortodera turgaica* from Naurzum arranged by S. Kakunin (Krasnodar).

Cortodera komarovi Danilevsky, 1996, stat. rest.

(Figs 1-6, Map: 1-6)

Cortodera komarovi Danilevsky, 1996: 63 - "NW Kazakhstan, Uralsk Area, Furmanovo"; Althoff & Danilevsky, 1997: 11.
Cortodera ruthena komarovi, Danilevsky, 2001: 8.
Cortodera pallidipes komarovi, Danilevsky & Smetana, 2010: 123.
Cortodera tibialis komarovi, Danilevsky, 2010: 225.

Type locality (Map: 1)**.** North-West Kazakhstan: Furmanovo (now Zhalpaktal - 49º40'N, 49º27'E) environs – according to the original description.

Amphygenetic species; males and females are usually rather

similar (females are unknown in the nominative subspecies); apical joint of maxillary palpi strongly widened, axe-like; antennae lightened distally or totally yellowish; 1st , 3rd and 4th joints are about equal in length and shorter that 5th, but in general 4th joint is the shortest of four; elytra without long erect setae; dirty-yellow, usually darkened along suture; prothorax strongly transverse or (in certain males) nearly as wide at base as long; lateral tubercles indistinct; pronotum with mixed erect and recumbent pubescence; pronotal punctation moderately dense with distinct space between dots; elytra in males distinctly converging posteriorly, sometimes (in certain males) rather strong; elytra in females nearly parallelsided; legs in males totally black with anterior tibiae often slightly lightened; femora bases also can be a little lightened; legs in females usually lighter, all tibiae can be yellowish, as well as bases of all femora; body length in males 7.7-9.1 mm, body length in females: 8.5-10.6mm

Distribution (Map: 1-6). Western part of north Kazakhstan from about west republic border to Karaganda Region.

Biology. Species is not connected with river valleys and known from dry desert and semidesert areas. Imagoes are active from May to June.

Cortodera komarovi komarovi Danilevsky, 1996

(Map: 1)

Type locality (Map: 1)**.** North-West Kazakhstan: Furmanovo (now Zhalpaktal - 49º40'N, 49º27'E) environs.

Females are unknown; numerous known males from the type locality are all similarly colored; antennae from totally dark to strongly lightened distally; narrow black line along suture sometimes indistinct; elytral recumbent pubescence more adpressed; elytral punctation relatively fine; legs totally black or anterior tibiae slightly lightened, femora bases never lightened; last elytral sternite often yellowish; body length 7.7-9.1 mm.

Distribution (Map: 1)**.** Only one locality known: North-West Kazakhstan: Furmanovo (now Zhalpaktal - 49º40'N, 49º27'E) environs.

Biology. All specimens (about 20 males) were collected 20.6.1992.

***Cortodera komarovi solodovnikovi* ssp. n.**
(Figs 1-2, Map: 2)

Type locality (Map: 2)**.** West Kazakhstan, Aktolagay Ridge, 47°36'40.88"N, 54°47'3.21"E.
Description. Antennae totally dark-brown or lightened distally or (one female) lightened basally; 1st , 3rd and 4th joints are about equal in length and shorter that 5th; elytra dirty-yellow, usually darkened along suture; prothorax in males from 1.4 to 1.1 wider than long, in females - about 1.3 times wider than long; elytra with less adpressed recumbent pubescens, in males and in females about 2.2 times longer than wide; with less fine puncation; legs in males totally black; in females can be about similarly colored with slightly lightened anterior tibiae and femora bases or with all tibiae and femora bases reddish; abdomen totally black; body length in males 8.0-8.6mm, body length in females: 8.5-8.8mm
Materials. Holotype, male, West Kazakhstan, Aktolagay Ridge, 47°36'40.88"N, 54°47'3.21"E, 88m, 7-11.5.2004, I.A. Solodovnikov leg. – author's collection; 6 paratypes with same label: 2 males and 2 females in author's collection (both females with damaged abdominal apex), 1 male in collection of A. Napolov (Riga), 1 male in collection of A. Shapovalov (Orenburg).
Biology. All specimens were collected by soil (*Carabus*) traps. The biotope is semidesert with poor *Artemisia-Poaceae* vegetation.
Remark. *C. k. solodovnikovi* **ssp. n.** differs from the nominative subspecies by distinctly darker antennae, less adpressed elytral pubescence, totally black abdomen.

The new subspecies is dedicated to Igor Solodovnikov (Vitebsk), who collected the type series.

***Cortodera komarovi romantzovi* ssp. n.**
(Figs 3-4, Map: 3-4)

Type locality (Map: 3)**.** Kazakhstan, Aktobe (Aktyubinsk) Region, Temir river Valley near Pokrovskiy, 240m [about 49°19'50"N, 57°02'55"E].
Description. Only 1 male and 1 female available. Body black with yellow elytra; anterior and posteior margins of female prothorax

brownish; antennae of both specimens a little darkened at middle and lightened basally and distally, but 1st antennal joint about totally (male) or partly (female) black; legs black with slightly darkened anterior tibiae and bases of hind femora in female; abdomen totally black.

Head short; last joint of maxillary palpi elongated, more widened in female; 3rd and 4th antennal joints about equal in length and about as long as 1st, much shorter than 5th; prothorax moderately wide, in male about 1.2 times wider than long, in female about 1.3 wider than long; a little widened laterally near middle; pronotum with less dense fine punctation, the distance between dots can be as wide as size of a dot; smooth central longitudinal line indistinct in male or very narrow in female; pronotal pubescence with mixed erect, semierect and recumbent setae; elytra in male strongly tapering posteriorly, in female - about parallelsided; in male and in female about 2.2 times longer than wide; elytral punctation rather dense, small, and regular, similar in male and in female; elytral pubescence relatively short, in male with several erect or semierect setae anteriorly, absent in female; pygidium in male and in female narrowly truncated; postpygidium in male with very small emargination; last abdominal sternite in male with small emargination, in female - widely rounded; body length in male: 8.8mm, width: 2.7mm; body length in female: 9.8mm, width: 2.9mm.

Materials. Holotype, male, Kazakhstan, Aktobe (Aktyubinsk) Region, Temir river near Pokrovskiy, 240m [about 49°19'50"N, 57°2'55"E], 22.5.2000, P.V. Romantzov leg. – author's collection; paratype, female, Kazakhstan, Aktobe (Aktyubinsk) Region, Karakhobda river near Alpaysay, 174m [about 50°12'20"N, 56°13'20"E], 26.5.2000, P.V. Romantzov leg. – author's collection.

Remark. Male of *C. k. romantzovi* **ssp.n.** is very similar to males of *C. k. komarovi*, but differs by much longer apical jonts of maxillary palpi, relatively longer 3rd antennal joint; less dense and shorter pronotal and elytral pubescence. Female of *C. k. romantzovi* **ssp.n.** differs from females of *C. k. solodovnikovi* **ssp. n**. by much bigger size and elongated epical palpal joints.

The new subspecies is dedicated to Pavel Romantzov (Sankt-Petersburg), who collected the type series.

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Cortodera komarovi sarysuensis ssp. n.

(Figs 5-6, Map: 5-6)

Cortodera ruthena turgaica Danilevsky, 2001: 9, part. - "Central and North Kazakhstan from Arkalyk and Naurzum in Kustanai region to Tengiz Lake in Astana region and Zhana-Arka in Karaganda region. One specimen is known from Russia (South Urals in Miass environs, Cheliabinsk region)".
Cortodera pallidipes turgaica, Danilevsky & Smetana, 2010: 123, part.
Cortodera tibialis turgaica, Danilevsky, 2010: 225, part.

Type locality (Map: 5)**.** Kazakhstan, Karaganda Region, valley of Taldy-Manak river about 25 km southwards Zhana-Arka [Atasu], 48°27'48"N, 71°41'15"E.

The type series of *C. ruthena turgaica* Danilevsky, 2001 is recognized to be consisted of two rather different species. One of them is described bellow as a new subspecies of *Cortodera komarovi.*

Description. Only one pair (male and female) available. Body black with light-brownish elytra and antennae; lateral areas of prothorax in female also brown, as well as anterior and posterior pronotal areas and abdominal apex; male elytra darker than female, darkened along epipleura, with very narrow black sutural line; legs in male black with sligtly lightened anterior tibiae and tarsi; in female all femora orange-yellow with black apices, all tibiae and tarsi also orange-yellow, anterior tarsi slightly darkened.

Head rather short; last joint of maxillary palpi short, widened apically, wider in male, than in female; 1st antennal joint in male about as long as 4th, longer than 3rd and shorter than 5th; in female 1st joint as long as 3rd, longer than 4th and shorter than 5th; prothorax relatively wide, in male about 1.2 times shorter, than basal width, in female about 1.3 times shorter, than basal width; a little widened laterally beforte middle; pronotum with very dense regular fine punctation, the dots nearly tuching each other; smooth central longitudinal line very narrow and short, in male about indistinct; male pronotal pubescence consists of long erect and shorter semierect setae; female pronotal pubescent is similar, but shorter and more adpressed; elyra in male strongly tapering posteriorly, in female - just a little; in male about 2.14 times longer than wide, in female - about 2.13 times; elytral punctation rather dense, small and

regular, in female finer, than in male; elytral pubescence relatively short, in male with several erect setae anteriorly; pygidium in male rounded, postpygidium shallowly emarginated; pygidium in female widely rounded with very small emargination; last abdominal sternite in male with very small emargination, in female - widely rounded; body length in male: 8.5mm, width: 2.9mm; body length in female: 10.6mm, width- 3.3mm.

Materials. Holotype (paratype of *C. ruthena turgaica* Danilevsky, 2001), male, Kazakhstan, Karaganda Region, valley of Taldy-Manak river about 25 km southwards Zhana-Arka [Atasu], 48°27'48"N, 71°41'15"E, 516m, 11.6.1958, V.I. Tobias leg. – Zoological Institute (Sankt-Petersburg); female, paratype (paratype of *C. ruthena turgaica* Danilevsky, 2001), Kazakhstan, Akmolinsk Region [now Karaganda Region], Arkalyk env., Tersakan river valley, Mt. Kokshetau [49°57'26.86"N, 67°33'27.42"E], about 400m, 29.5.1957, A. Emelianov leg. – Zoological Institute (Sankt-Petersburg).

Remark. Male of *C. k. sarysuensis,* **ssp. n.** is characterized by wide prothorax covered with long pubescence, light anterior tibiae and tarsi, light antennae – especially light basal antennal joints, wich are usually black or dark brown in other subspecies. Female of *C. k. sarysuensis,* **ssp. n.** has much lighter legs and antennae than females of *C. k solodovnikovi,* **ssp. n.** or *C. k. romantzovi,* **ssp. n.**

Cortodera turgaica Danilevsky, 2001, stat. n.

(Figs 7-11, Map: 7-10)

Cortodera ruthena turgaica Danilevsky, 2001: 9, part. - "Central and North Kazakhstan from Arkalyk and Naurzum in Kustanai region to Tengiz Lake in Astana region and Zhana-Arka in Karaganda region. One specimen is known from Russia (South Urals in Miass environs, Cheliabinsk region)".

Cortodera pallidipes turgaica, Danilevsky & Smetana, 2010: 123, part.

Cortodera tibialis turgaica, Danilevsky, 2010: 225, part.

Type locality (Map: 7)**.** Kazakhstan, Kustanay Region, 30km NE Arkalyk, Zharkol Lake, 330m, 50°25'12"N, 67°13'26"E.

Description. Only 6 males and 1 female available. Body in males black or dark brown with yellow or brown elytra; a single known female totally orange, but it could be the result of prematurity; male antennae totally light or basal half considerably darkened, dark-

brown; anterior and posterior pronotal margins can be brown; elytra yellow, brown or dark brown; legs in males always yellow or orange-brown or brown with narrowly darkened femora apices; last abdominal sternites can be partly lightened.

Head short; last joint of maxillary palpi very short, widened apically, or a little elongated (male from Emba valley and in female); 3rd and 4th antennal joints very short and about equal in length, shorter than 1st and much shorter than 5th; prothorax moderately wide, in males from about 1.1 to 1.2 times wider than long, in female about 1.3 times wider than long; a little widened laterally near middle; pronotum often with less dense fine punctation, the distance between dots can be as wide as size of a dot; smooth central longitudinal line usually distinct with typically radially disposed setae arround; male pronotum with sparse erect setae mixed with numerous semierect and recumbent pubescence; female pronotum without erect setae; elytra in males strongly tapering posteriorly, in female - nearly parallelsided anteriorly; in males from 2.1 to 2.3 times longer than wide, in female – about 2 times; elytral punctation rather dense, small, and regular, similar in males and in female; elytral pubescence in males moderately long with several erect or semierect setae anteriorly; elytral pubescence in female very short, without erect or semierect setae; last abdominal tergites and female sternites widely rounded; last abdominal sternites in males slightly emarginated; body length in males: 5.5-9.0mm, width: 1.8-2.9mm; body length in female: 6.5mm, width: - 2.2mm.

Distribution. Central part of north Kazakhstan: from Emba river to Karaganda Region: Zharkol Lake near Arkalyk, 50°25'12"N, 67°13'26"E (type locality); Kurgaldzhinsky Natural Reserve in Astana Region, about 50°14'N, 67°E; Naurzum Natural Reserve in Kustanay Region; Emba river valley, 15km north-eastwards the city, 48°54'N, 58°18'E.

Materials. Holotype (*C. ruthena turgaica* Danilevsky, 2001), male, Kazakhstan, Kustanay Region, 30km NE Arkalyk, Zharkol Lake, 330m, 50°25'12"N, 67°13'26"E, 27.7.1958, M.I. Falkovitch leg. – Zoological Institute (Sankt-Petersburg); 6 paratypes: 1 male (paratype of *C. ruthena turgaica* Danilevsky, 2001), same locality, 12.7.1958, Dorokhina leg. – author's collection; 1 female (paratype of *C. ruthena turgaica* Danilevsky, 2001), Kazakhstan, Kustanay Region, 10km northwards from Zharkol Lake,

23.7.1957, L. Arnoldi leg. – Zoological Institute (Sankt-Petersburg); 1 male (paratype of *C. ruthena turgaica* Danilevsky, 2001), Kazakhstan, Astana Region, Kurgaldzhinsky Natural Reserve, Kulanutpes river [about 50°14'N, 67°E], 8.6.1962, L.Arnoldi leg. – Zoological Institute (Sankt-Petersburg); 1 male, about same locality, 7.6.1962, I.M. Kerzhner leg. – collection of A. Napolov (Riga); 1 male (paratype of *C. ruthena turgaica* Danilevsky, 2001), Kazakhstan, Kustanay Region, Naurzum Natural Reserve, 27.6.1940, A. Kamensky leg. – collection of A. Miroshnikov (Krasnodar); 1 male, Kazakhstan, 15km NE Emba, 48°54'N, 58°18'E, 270m, 20.5.2012 A.Ivanov leg. – author's collection.

Remark. *C. turgaica* Danilevsky, 2001, **stat. n.** is sympatric with *C. komarovis sarysuensis,* **ssp. n.** It can be easily identified by bicolored legs in males, light antennae and very special character of pronotal pubescence with radially disposed setae arround smooth area.

The population from Emba river valley is known after a single male only. That specimen is considerably darker than any of all other males of the species, with exceptionally dark, nearly black 3rd-6th antennal joints. So, it can represent a new local subspecies.

Cortodera ivanovi sp. n.

(Fig. 12, Map: 11)

Type locality (Map: 11)**.** Kazakhstan, Aktobe (Aktyubinsk) Region, Emba river Valley, Alshinsay, 80m, 47°38'N, 55°57'E.

Description. Only 1 male available. Body black including all legs and antennae, only bases of anterior tibiae red; distal antennal joint slightly brownish.

Head short; last joint of maxillary palpi strongly widened apically, axe-like; 3rd antennal joint about as long as 1st and much longer than short 4th joint, but shorter than 5th joint; prothorax wide, about 1.2 times wider than long; a little widened laterally near middle; pronotum with moderately dense fine punctation, the distance between dots can be as wide as size of a dot or wider near middle; smooth central longitudinal line distinct but very narrow; pronotal pubescence with mixed erect, semierect and recumbent setae; elytra strongly tapering posteriorly; about 2 times longer than wide; elytral punctation dense and very distinct with partly conjugated dots; elytral pubescence very short, semierect with several erect setae near humeri; pygidium with very deep round

emargination; postpygidium narrowly rounded; last abdominal sternite with small emargination; body length: 9.3mm, width: 3.0mm.

Materials. Holotype, male, Kazakhstan, Aktobe (Aktyubinsk) Region, Emba river Valley, Alshinsay, 80m, 47°38'N, 55°57'E, 11.5.2011 A.Ivanov leg. – author's collection.

Remark. The taxon does not look close to any other *Cortodera*, because of rather short body, sparse pronotal punctation and very dense elytral punctation. The color of the holotype is quite unique; no other so black specimens are known from Kazakhstan.

The new taxon is dedicated to Alexander Ivanov (Ekaterinburg), who collected the holotype.

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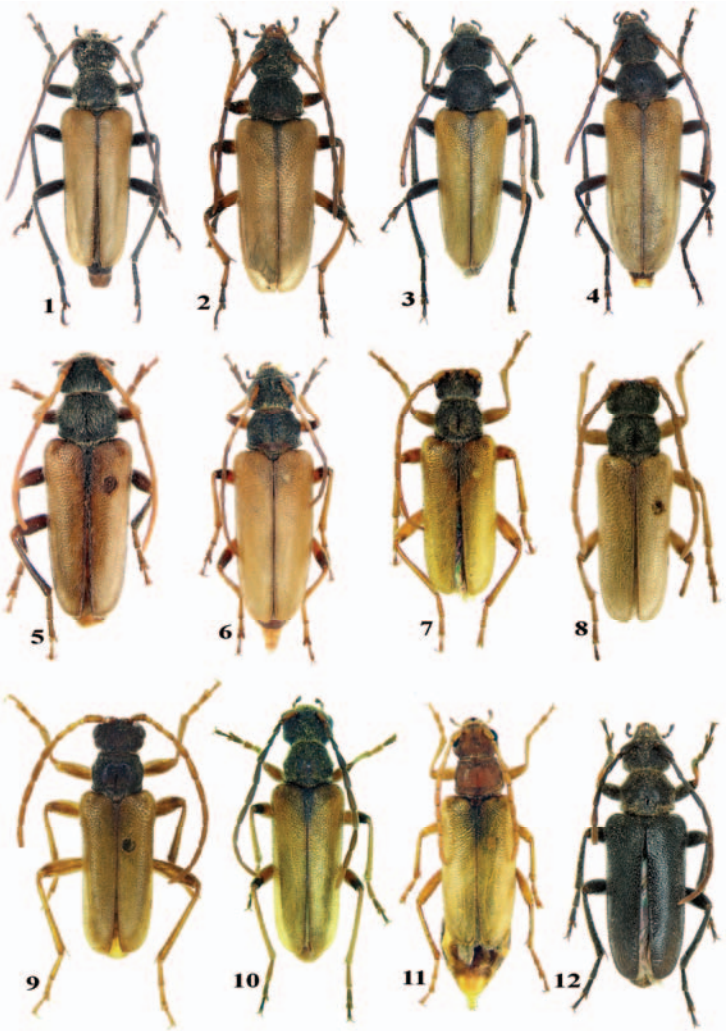

Figs 1-2. *C. k. solodovnikovi,* **ssp. n.**: 1 - male, holotype; 2 - female, paratype. **Figs 3-4.** *C. k. romantzovi,* **ssp. n.**: 3 - male, holotype; 4 - female, paratype. **Figs 5-6.** *C. k. sarysuensis,* **ssp. n.**: 5 - male, holotype; 6 - female, paratype. **Figs 7-11.** *C. turgaica,* **stat. n.**: 7 - male, holotype; 8 - male, paratype, Kazakhstan, Kurgaldzhinsky Natural Reserve, Kulanutpes river, 8.6.1962, L. Arnoldi leg.; 9 - male, paratype, Kazakhstan, Naurzum Natural Reserve, 27.6.1940, A. Kamensky leg.; 10 - male, paratype, Kazakhstan, 15km NE Emba, 20.5.2012, A. Ivanov leg.; 11 - female, paratype, Kazakhstan, 10km to the north from Zharkol Lake, 23.7.1957, L. Arnoldi leg. **Fig. 12.** *Cortodera ivanovi,* **sp. n.** - male, holotype.

1 - *Cortodera komarovi komarovi* - Furmanovo.
2 - *C. k. solodovnikovi,* **ssp. n.** - Aktolagay Mts.
3-4 - *C. k romantzovi,* **ssp. n.**: 3 - Temir river, near Pokrovskiy (type locality), 4 - Karakhobda river near Alpaysay.
5-6 - *C. k. sarysuensis,* **ssp. n.**: 5 - valley of Taldy-Manak river (type locality), 6 - Tersakan river valley, Mt. Kokshetau.
7-10 - *C. turgaica,* **stat. n.**: 7 - Zharkol Lake (type locality), 8 - Kurgaldzhinsky Natural Reserve, Kulanutpes river, 9 - Naurzum Natural Reserve, 10 - 15km NE Emba.
11 - *C. ivanovi,* **sp. n. -** Aktolagay Ridge.

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