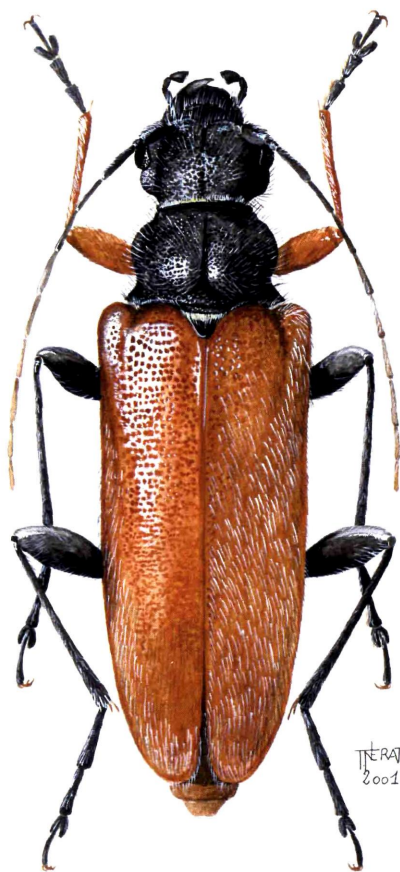


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Review of *Cortodera* species close to *C. reitteri* Pic, 1891
& *C. ruthena* Plavilstshikov, 1936, part 1
(Coleoptera, Cerambycidae)



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№7

Review of *Cortodera* species close to *C. reitteri* Pic, 1891 and *C. ruthena* Plavilstshikov, 1936, Part I. (Coleoptera, Cerambycidae)

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Summary

Eight species : *C. reitteri* Pic, *C. kiesenwetteri* Pic, *C. ciliata* sp. n., *C. analis* Gebl., *C. semenovi* Plav., *C. ruthena* Plav., *C. moldovana* Danil., stat. n. and *C. khatchikovi* sp. n. (from Rostov region) with several subspecies and morphology forms are described and figured. *C. reitteri* is regarded as composed of three subspecies : nominative from South Russia and East Ukraine, *C. r. mikhailovi* ssp. n. from South Urals and *C. r. taurica* Plav., stat. n. from Crimea. Two new synonyms are established : *C. reitteri taurica* = *C. beckeriana* Plav., *C. reitteri reitteri* = *C. alexandri* Danil. *C. kiesenwetteri* includes two subspecies : nominative from Astrakhan and *C. k. subtruncata* ssp. n. from Samara and Saratov regions. *C. ciliata* sp. n. close to *C. kiesenwetteri* includes two subspecies : nominative from East Kazakhstan and *C. c. milaenderi* ssp. n. from Bashkiria Republic (Ufa env.). *C. semenovi shavrovi* ssp. n. is described from Khakassia Republic (Abakan). *C. ruthena* consists of four subspecies : nominative from Uralsk environs and from Volgograd, *C. r. rossica* ssp. n. from South Russia and East Ukraine, *C. r. komarovi* stat. n. from West Kazakhstan and *C. r. turgaica* ssp. n. from North and Central Kazakhstan.

Résumé

Huit espèces : *C. reitteri* Pic, *C. kiesenwetteri* Pic, *C. ciliata* sp. n., *C. analis* Gebl., *C. semenovi* Plav., *C. ruthena* Plav., *C. moldovana* Danil., stat. n. et *C. khatchikovi* sp. n. (de la région de Rostov), ainsi que quelques sous-espèces et formes morphologiques sont décrites et figurées. *C. reitteri* est considérée comme une espèce polymorphique composée de trois sous-espèces : nominative de Russie méridionale et d'Ukraine orientale, *C. r. mikhailovi* ssp. n. du sud de l'Oural et *C. r. taurica* Plav., stat. n. de Crimée. Deux synonymes nouveaux sont établis : *C. reitteri taurica* = *C. beckeriana* Plav., *C. reitteri reitteri* = *C. alexandri* Danil. *C. kiesenwetteri* est divisée

en deux sous-espèces : nominative d'Astrakhan et *C. k. subtruncata* ssp. n. des régions de Samara et de Saratov. *C. ciliata* sp. n. proche de *C. kiesenwetteri* est composée de deux sous-espèces : nominative du Kazakhstan oriental et *C. c. milaenderi* ssp. n. de la République de Bashkiria (environs d'Ufa). *C. semenovi shavrovi* ssp. n. est décrite de République de Khakassie (Abakan). *C. ruthena* est composée de quatre sous-espèces : nominative des environs d'Uralsk et de Volgograd, *C. r. rossica* ssp. n. de Russie méridionale et d'Ukraine orientale, *C. r. komarovi* stat. n. du Kazakhstan occidental et *C. r. turgaica* ssp. n. du Kazakhstan septentrional et central.

Key words

Coleoptera, Cerambycidae, *Cortodera*, new taxa, Kazakhstan, Russia, Ukraine.

Recently collected materials together with a few specimens from different museums allow to begin the clarification of the very complicated taxonomical situation around several East European and West Asian *Cortodera* species, characterized by a high degree of geographical and individual variability. All taxa examined in the current paper are very rare in nature and are represented in museums by single specimens. The natural taxonomy of the group is far from being clear. The study of the problem needs new collecting efforts.

Cortodera reitteri Pic, 1891 (Figs 1-3)

Type locality. - Sarepta, suburbs of Volgograd in Russia.

Cortodera reitteri Pic, 1891: 43 (« Sarepta »); Pic, 1898b : 111, 116-117; Aurivillius, 1912 : 199; Winkler, 1929 : 1153; Plavilstshikov, 1936 : 264, 273-274, 534; Lobanov & al., 1981 : 799.

Description. - Body length in males : 8.3-11.2 mm, in females : 9.7-12.5 mm; body width in males : 2.7-3.6 mm, in females : 3.3-4.2 mm.

Body relatively big, black, often with red apex of abdomen.

Head with palpi usually black, but sometimes reddish, apical joints usually strongly dilated, triangular, but sometimes nearly parallelsided. Antennae from totally reddish to totally black, usually black with reddish distal joints. Male antennae usually a little shorter than female antennae, but both usually reaching hind elytral third, or female antennae hardly pass beyond elytral middle. The proportions of joints can be variable even in specimens from one population: 5th joint longer than 3^d, 3^d longer than 4th, 4th longer than 1st; or 1st is about equal to 3^d and longer than 4th; or 5th about equal to 3^d and longer than 1st, which is about equal to 4th; or 5th longer than 1st, 1st longer than 3^d, 3^d longer than 4th; usually among 5 first (without 2nd) joints 5th is the longest and 4th is the shortest; 2nd joint usually longer than wide, sometimes about as long as wide.

Prothorax distinctly widened near middle, here often about as wide as in base or in base much wider, lateral tubercles indistinct or poorly developed; in males about 1.1 times wider than long, in females from 1.1 to 1.4 times wider than long. Pronotal punctuation very dense, the distance between punctures usually less than diameter of each, sometimes punctuation much denser with conjugated punctures, very rarely punctuation sparse with distance between punctures more than diameter of each; small smooth elongated area in the middle near posterior margin usually present, but sometimes absent. Pronotal pubescence usually mixed, consisting of long erect and shorter semierect setae, sometimes erect setae are short and indistinct, sometimes nearly or totally absent, often erect setae are very long and numerous and semierect setae indistinct; pronotal pubescence usually pale (even in ab. *alexandri*), but sometimes black.

Elytra in males tapering posteriorly, in females parallelsided; in males from 2 to 2.3 longer than wide, in females - from 2 to 2.2 times; from orange-yellow to black, sometimes suture region anteriorly darkened, often curved humeral margin darkened anteriorly; with pale, adpressed pubescence, very rarely black elytra can be with black pubescence; usually several erect setae present near humeri, sometimes erect setae are more numerous here or totally absent (but usually not cover anterior elytral third as in *C. kiesewetteri* Pic.). Legs from totally red to totally black; usually all tarsi black, anterior femora and tibiae red, other tibiae black, in males middle and posterior femora black, in females red with black apices.

Abdomen from totally black to totally red with slightly darkened 1st visible sternite; usually two first sternites black, two last sternites red, 3rd sternite black anteriorly - red posteriorly. Last abdominal sternite in males rounded with small emargination, pygidium from widely truncate to deeply emarginate, postpygidium always rounded; in females last abdominal sternite and tergite usually similar apically, both rounded, or truncate, or with very small emarginations.

Forms of aedeagus and parameres are more or less equal in all forms and subspecies; parameres of small brown male from Volgograd are relatively shorter, than normal.

Materials. - 48 males and 30 females listed below in the descriptions of subspecies; besides 4 very old specimens without locality labels : 1 male (Zoological Museum of Moscow State University); 2 male and 1 female (Zoological Institute, S. Petersburg).

Distribution (Fig.17 : 1, 3-4, 6-8, 11-12; Fig.18 : 1-3, 5, 9-12, 18). - East Ukraine : Lugansk region, Kharkov region, Donetsk region, Crimea Peninsula; South of European part of Russia : whole territory of Rostov region from Chertkovo district in the north to Matveev-Kurgan district and Salsk district (the last locality was mentioned by Plavilstshikov, 1936) in the south, Volga Valley from Volgograd environs northwards to Saratov environs. An isolated population is known from the south Urals : south of Cheliabinsk region (Bredy environs). Very possible the occurrence of the species in the vast area from Volga to the east of Orenburg region and in north Kazakhstan in Ural region.

Bionomy. - A few known populations seem to be always connected with karst landscapes, chalk hills and narrows. I collected a lot of specimens along the bottom of chalk narrow on flowers of a very big species of *Euphorbia* near Olkhovka in Volgograd region in the beginning of June 1999. Other *Euphorbia* species as well as other flowers in the locality were without *Cortodera reitteri*.

Remarks. - The original description was based on three equally coloured syntypes (evidently, all were males) from Sarepta (now south-west suburb of Volgograd). Only one male (Fig. 1 : a) with the labels « Sarepta » and « Holotype » is preserved now in the Museum National d'Histoire Naturelle (Paris) and is designated here as lectotype.

The holotype of *C. taurica* Plav. (male, Fig. 3 : a) is very similar to the lectotype of *C. reitteri* (as well as to other *C. reitteri* of typical form) and differs first of all by black legs and abdomen. I do not know another male of *C. reitteri* similarly coloured (yellow elytra combined with black legs and abdomen), but such colour form seems to be rather possible in the species. Such female (with yellow elytra, black legs and abdomen, fig. 3 : b) from Simferopol was identified by N. N. Plavilstshikov as *C. reitteri* ! Until serial materials from Crimea will be collected I prefer to regard the regional population as subspecies : *C. reitteri taurica* Plav., stat. n., characterized by the presence in the population specimens with yellow elytra combined with black legs and abdomen, as well as specimens coloured like typical *C. reitteri*.

The original description of *C. beckeriana* Plav. was based on three males. One male from N. N. Plavilstshikov's collection (now in the Zoological Museum of Moscow State University) with red printed label « type » is designated by me here as lectotype (Fig. 3 : c). It has two more labels by N. N. Plavilstshikov's hand : « Crimea, circ. Simferopol, 19.5.08, I. Parfentiev » and « *Cortodera beckeriana* m., N. Plavilstshikov det. ». Two other males of Plavilstshikov's type series are deposited in the Zoological Institute in S.-Petersburg. The second male (designated here as paralectotype) from Crimea, which is absolutely similar to the lectotype, also with red printed label « Typus », has two more hand-writing labels : « Simferopol, Juni » and « *Cortodera beckeriana* m., N. Plavilstshikov det. » The later label, written by N. N. Plavilstshikov, has female mark by his hand. So this male was regarded by the author of the species as female, that is why N. N. Plavilstshikov described deeper triangular depression in last female abdominal sternite, which is impossible in *Cortodera*. The lectotype and paralectotype of *C. beckeriana* are conspecific with *C. reitteri*, and therefore belong to its Crimean subspecies : *C. reitteri taurica* Plav. = *C. beckeriana* Plav., syn. n. The third male (Fig. 1 : e) of the type series with printed label « Paratypus » (and three more labels : « Sarepta », « Kiesenwetteri Beck. » and « *Cortodera beckeriana* m., N. Plavilstshikov det. ») is morphologically unique (small, with brown elytra, brownish legs, totally black abdomen, specially punctured pronotum without smooth longitudinal area). This specimen originated from the type locality of *C. reitteri* must be attributed to its nominative subspecies.

The description of *C. beckeriana* as a separate species by N. N. Plavilstshikov could be connected with the fact that both specimens of *C. reitteri* in his own collection, identified by M. Pic personally, were females, and females in *C. reitteri* are rather different from males.

C. alexandri Danilevsky (Fig. 1 : f, g) is not more than the local black form of *C. reitteri* : *C. reitteri reitteri* Plav. = *C. alexandri* Danil., syn. n. It became evident last season, when I collected numerous different colour and morphology forms of *C. reitteri* in the type locality of *C. alexandri* (17 km S. W. Olkhovka, Ilovlia River, in about centre of Volgograd region). In my original description the location of Olkhovka was marked wrong, in fact it is situated westwards Volga about 60 km from the river (see the map, Fig. 18 : 10). Black forms similar to *C. alexandri* are also known from Rostov region (male and female : Matveev-Kurgan distr., Uspenskaia).

C. reitteri var. *obscuripennis* Pic (Fig. 1 : h) also with totally black elytra, legs and abdomen differs by unusually wide prothorax with sparser punctuation than in any other known specimen of the species from the region.

The species seems to be not close to partly sympatric *C. kiesenwetteri* Pic - an extremely rare species (only two rather different males from two different localities are known). It differs mainly by usual absence of dense long erect setae on anterior elytral third. All known specimens of *C. kiesenwetteri* have totally dark antennae, legs and abdomen. The elongate pronotal smooth area near middle of posterior margin is always well developed and rather peculiar in form. The aedeagus of *C. kiesenwetteri* is considerably less sharp, than in *C. reitteri*, but parameres are similar.

Small pale specimens of *C. reitteri* can be similar to *C. ruthena* Plav. Still the small body size is the good distinguishing character of *C. ruthena* (males never longer than 9.2 mm; females very rarely reach 10.5 mm, usually not longer than 9.5 mm); besides, prothorax usually with much denser punctuation, with contiguous or even partly conjugated punctures; elytra often with erect setae distributed beyond the middle. Aedeagus of *C. ruthena* differs considerably : much more narrow and sharp, parameres also different.

***C. reitteri reitteri* Pic, 1891, stat. n. (Fig. 1)**

Type locality. - Sarepta, suburbs of Volgograd in Russia.

Cortodera reitteri Pic, 1891: 43 (« Sarepta »); Pic, 1898b : 111, 116-117; Aurivillius, 1912 : 199; Winkler, 1929 : 1153; Plavilstshikov, 1936 : 264, 273-274, 534; Lobanov & al., 1981 : 799.

Cortodera reitteri var. *obscuripennis* Pic, 1898a : 48-49 (« Sarepta »); 1898b : 111, 117; Aurivillius, 1912 : 199 (as aberratio); Winkler, 1929 : 1153 (as aberratio); Plavilstshikov, 1936 : 274, 534 (as aberratio).

Cortodera reitteri var. *separata* Pic, 1898b : 111, 117 (« Sarepta »); Aurivillius, 1912 : 199 (as aberratio); Winkler, 1929 : 1153 (as aberratio); Plavilstshikov, 1936 : 274, 534 (as aberratio).

Cortodera alexandri Danilevsky, 1996 : 63 (Volgograd reg., Olkhovka), **syn. nov.**

Description. - Body length in males : 8.3-11.2 mm, in females : 9.7-12.5 mm; body width in males : 2.7-3.6 mm, in females : 3.3-4.2 mm.

Five main morphology forms can be delimited. Typical form (Figs 1 : a-d, i, j,) seems to be dominating (I know 32 males and 20 females from all parts of the subspecies area): elytra orange-yellow, suture can be darkened anteriorly (var. *separata*); erect setae near elytral base usually absent, or several setae present, numerous setae present in certain males from Saratov, Chertkovo district and Lugansk region; antennae black with reddish distal joints (from 6th or 7th), basal joint also partly reddish (in internal side), specimens from North Donetz River Valley (Lugansk region, Fig. 17 : 6) and Donetsk region (Fig. 17 : 3) with totally red antennae (Fig. 1 : j); palpi black with strongly dilated apical joints; prothorax with very dense punctuation, which can be much denser in females, all 3 specimens from Lugansk region with a little sparser punctuation; pronotal pubescence mixed with a lot of long erect setae, which can be nearly absent in females; all tarsi black, anterior tibiae and femora red; middle and posterior tibiae black, middle and posterior femora in males black with red bases or totally black, in females red with black apices; specimens from North Donetz River Valley in Lugansk region (Fig. 1 : i-j; 17 : 6) and one female from « Rostov-on-Don » with totally red tibiae, femora and reddish tarsi; abdomen usually black with two last visible sternites red, or often third sternite half red, or totally red, or very rarely two first sternites with red lateral and posterior borders, or abdomen totally red with slightly darkened two first sternites (female from « Rostov-on-Don »).

Cortodera r. reitteri ab. *obscuripennis* (Fig. 1 : h) is represented by a single very large female (length : 11 mm, width : 3.8 mm) from Sarepta. Elytra totally black, without erect setae near humeri; legs dark-brown with lightened tarsi and anterior tibiae, antennae totally reddish, abdomen totally black; palpi reddish with moderately elongated apical joints; prothorax extremely wide (about 1.4 times wider than long), without erect setae, with moderately dense punctuation - the distance between punctures sometimes more than diameter of each.

Black form *C. r. reitteri* ab. *alexandri* (Fig. 1 : f, g) described as *C. alexandri*, is on an average smaller than typical form (body length in males : 8.3-11.3 mm, in females : 9.7-12 mm; body width in males : 2.7-3.3 mm, in females : 3.3-4.2 mm.). It is totally black with reddish distal antennal joints, or all joints but 1st are reddish, 1st joint can be totally black or with reddish internal surface. Anterior tibiae and tarsi as well as palpi can also be reddish. Palpi are usually with less triangular apical joints, less dilated apically. Pronotum with very dense punctuation and mixed pubescence. Males can have strongly emarginated pygidium; postpygidium and posterior pygidium margin as well as posterior margin of female abdomen can be brown. This form is known from three localities : Olkhovka (14 males and 6 females), Trekhostrovskaia (1 female) - both in Volgograd region; and Uspenskaia (1 male and 1 female) in Rostov region (Fig. 18 : 3, 10-11). It always occurs conjointly with typical form. In Olkhovka environs black form is about 30% of the population.

The fourth form (Fig. 1 : e) is represented by a single small male from Sarepta (length : 8.7 mm, width : 2.8 mm) with totally brown elytra and legs; femora, curved elytral margin and anterior part of sutural area slightly darkened; antennae totally reddish with darkened basal joint; prothorax with moderately dense regular punctuation, without smooth elongated area, with mixed pubescence; elytral bases with a few erect setae; abdomen totally black; pygidium truncate, postpygidium and last visible abdominal sternite slightly emarginated.

This form seems to be rather close to *C. r. reitteri* ab. *alexandri*.

The fifth form (Fig. 1 : k; Fig. 17 : 4) is represented by a single female from « Streletzkaia Steppe » (a part of State Natural Reserve) - near Chertkovo in the north-

eastern most angle of Lugansk region (length : 11 mm, width : 3.1 mm). It is characterized by slightly transverse prothorax, with sparser punctated pronotum, without erect setae; central smooth area long and narrow; antennae brownish with slightly lightened basal joints; elytra orange-yellow with anteriorly darkened suture, curved elytral margin not darkened; anterior legs red with darkened tarsi, other legs black with red basal parts of femora; abdomen black with red two last visible sternites and red posterior border of 3^d sternite.

This form seems also cohabits with typical form, as a pair of typical specimens is known from Tikhaiia Zhuravka in Chertkovo district (Fig. 18 : 5).

Specimens from North Donetz River Valley and a female from « Rostov-on-Don » (Fig. 18 : 2) attributed by me to the typical form are more or less transitional to the female from « Streletskaia Steppe », which is morphologically similar to the next subspecies.

Materials. - LECTOTYPE (present designation), male, South Russia, « Sarepta » (Museum d'Histoire Naturelle, Paris); 2 males and 1 female, Ukraine, Voroshilovgrad (now Lugansk) region, Provalskaia Steppe, Grushevaia Balka, North Donetz River Valley, 1.6.1952, S. Medvedev *leg.*; 1 female, « Saratov » (Zoological Museum of Moscow State University); 2 males, « Sarepta »; 1 male, « Sarat. » (Zoological Institute, S. Petersburg); 1 male and 1 female, Rostov reg., Chertkovo distr., Tikhaiia Zhuravka, 13.6.1987, P. Ivliev *leg.* (collection of A. Miroshnikov, Krasnodar); 1 female, Ukraine, Kharkov env., 21.6.1916; 1 female, Ukraine, Rostov-on-Don, 1.6.1954, V. Romanova *leg.*; 2 males and 2 females, Rostov reg., Matveev-Kurgan distr., Uspenskaia, 7.1992, M.V.Nabozhenko *leg.* (collection of Rostov University); 1 male and 2 females, Volgograd reg., Ilovlia distr., Trekhostrovskaia, 21.5.99, A.Kravetz *leg.*, (collection of E. Komarov, Volgograd); 1 male, Ukraine, Veliko-Anadol (near Olginka, about 30 km south Donetsk), 28.5.1906; 1 female, Lugansk reg., « Streletskaia Steppe » near Chertkovo, 12.6.1952, K. Arnoldi *leg.*; 1 male, Volgograd env., Dargora, 28.5.1989, I. Liubadin *leg.*; 1 female, Volgograd env., Gornaia Poliana, 10.6.1993, E. Komarov *leg.*; 4 males and 1 female (holotype and paratypes of *C. alexandri*), South Russia, Volgograd reg., 17 km S.W. Olkhovka (in my original description the location of Olkhovka was marked wrong, in fact it is situated westwards Volga about 60 km from the river), 6.5.1995, A.Dantchenko *leg.*; 30 males and 18 females, from same locality, 1-3.6.1999, M. Danilevsky *leg.* (author's collection).

Distribution (Fig. 17 : 1, 3-4, 6, 8, 11-12; Fig. 18 : 1-3, 5, 9-12). - East Ukraine : Lugansk, Donetsk and Kharkov regions; Russia : whole territory of Rostov region from Chertkovo district in the north to Matveev-Kurgan district and Salsk district (the last locality was mentioned by Plavilstshikov, 1936) in the south, Volga Valley from Volgograd environs northwards to Saratov environs.

Bionomy. - Specimens from near Olkhovka were observed by me along the bottom of the ravine in high right bank of Ilovlia River on the flowers of big *Euphorbia* sp. in the beginning of June 1999. Other *Euphorbia* species as well as other flowers in the locality were without *Cortodera reitteri*.

***C. reitteri mikhailovi* Danilevsky, ssp. n.** (Fig. 2)

Type locality. - Bredy distr. in Cheliabinsk reg. of Russia.

Description. - HOLOTYPE with body length : 11.4 mm, width : 3.6 mm; PARATYPE with body length : 11.7 mm, width : 3.8 mm. Males unknown.

Females : Body black with orange-yellow elytra.

Head with palpi black with moderately dilated apical joints; antennae totally red or red with slightly darkened basal half; 1st joint is about equal to 4th, slightly shorter than 3^d and much shorter than 5th.

Prothorax different in the two known specimens : in holotype (Fig. 2 : a) 1.2 times wider than long, pronotum with relatively sparse punctuation (interspaces often larger than diameter of punctures), with moderately dense semierect setae, without erect setae; in paratype (Fig. 2 : b) wider - 1.3 times wider than long; pronotum with denser punctuation with a few erect setae among dense semierect and adpressed setae; elongate smooth central area present in both specimens, though in holotype longer; elytra without erect setae near bases; legs with reddish tarsi, only basal tarsi joints darkened; anterior femora and tibiae totally red; other femora and tibiae bicoloured, though in holotype black femora apices and tibiae bases wider.

Abdomen black with two apical sternites red (holotype), or posterior part of third sternite also red (paratype).

Materials. - HOLOTYPE, female, Russia, Cheliabinsk reg., Bredy distr., « Arkaim » Natural Reserve, 31.5.1995, Ju. E. Mikhailov *leg.*; PARATYPE, female, Russia, Cheliabinsk reg., Bredy distr., « Arkaim » Natural Reserve, 17.6.1994 Ju. E. Mikhailov *leg.* (author's collection).

Distribution (Fig. 18 : 18). - Both known specimens are from the southmost steppe area of Cheliabinsk region : Bredy district, « Arkaim » Natural Reserve.

Remarks. - The area of the taxon is isolated by a long distance from the main area of *C. reitteri* (about 1000 km). This fact together with the morphology of the specimens makes possible the species rang of the population. Both females are not close to any known form of *C. reitteri*, though small narrow prothorax without erect setae is similar to the prothorax of the unique female of *C. reitteri reitteri* from the north of Rostov region (« Chertkovo »).

***C. reitteri taurica* Plavilstshikov, 1936, stat. n.** (Fig. 3)

Type locality. - Simferopol env., Crimea Peninsula, Ukraine.

Cortodera taurica Plavilstshikov, 1936 : 265, 280-281, 536, 539-540 (Crimea, Simferopol); Lobanov & al., 1981 : 799.

Cortodera beckeriana Plavilstshikov, 1936 : 266, 285-286, 538, 541-542 (Crimea, Simferopol), **syn. nov.**; Lobanov & al., 1981 : 799 (as spec. propr.)

Description. - Body length in males : 10-11, in female : 12.5 mm; body width in males : 3.4-3.6, in female : 3.9 mm.

Elytra orange-yellow, suture often (in two males and in female) black anteriorly; one male (holotype of *C. taurica*, Fig. 3 : a) and a female (Fig. 3 : b) with totally black abdomen, two other males : lectotype (Fig. 3 : c) and paralectotype of *C. beckeriana* (present designation) with red abdominal apex : two last visible sternites red or posterior margin of 3^d sternites also red. Palpi black, apical joints strongly dilated, triangular; antennae brownish or darkened in basal part; in holotype 1st joint about equal to 3^d, longer than 4th and shorter than 5th; in female 1st joint about equal to 5th longer than 3^d and much longer than 4th; in males with partly red abdomen 1st joint longer than 4th, shorter than 3^d and much shorter, than 5th.

Prothorax relatively wide, in all 3 males strongly widened posteriorly, so prothorax at base much wider than at middle - the character which is rather rare in *C. r. reitteri* (only in male from « Saratov » and in one of males without locality label), pronotum with very dense punctuation, smooth longitudinal area present, pronotal pubescence mixed, erect setae dense and long, though in female shorter and less numerous; elytra with a few erect setae near base; legs of specimens with black abdomen (male and female) black with partly brownish anterior tibiae; males with red abdominal apex have anterior legs red with black or brownish tarsi, other tarsi, tibiae and posterior femora black, middle tibiae black or bicoloured.

Materials. - HOLOTYPE, male, « Crimea, Simferopol »; 1 male, LECTOTYPE of *C. beckeriana* - present designation, « Crimea, circ. Simferopol, 19.5.08, I. Parfentiev » (Zoological Museum of Moscow State University); 1 male, PARALECTOTYPE of *C. beckeriana* - present designation, « Simferopol, Juni »; 1 female, Crimea, Simferopol, 20.5.1931 (Zoological Institute, S. Petersburg).

Distribution (Fig. 17 : 7). - All four known specimens are from Simferopol environs in Crimea Peninsula.

Remark. - The subspecies is characterized by the presence in the population of specimens with totally black abdomen, black legs and orange-yellow elytra.

***Cortodera kiesenwetteri* Pic, 1898** (Figs 4-5)

Type locality. - Astrakhan env., Russia.

Cortodera kiesenwetteri Kraatz, 1876 : 319-320 (« Sarepta »), *nomen nudum*.

Cortodera kiesenwetteri Pic, 1898a : 49 (« Astrakan »); 1898b : 110, 116-117; Aurivillius, 1912 : 199; Winkler, 1929 : 1153; Plavilstshikov, 1936 : 264, 275, 534; Lobanov & al., 1981 : 799.

Only two males arranged in two subspecies from two rather distant localities are known.

Description. - Body length : 9.8-11.3 mm; width : 3.1-3.7 mm. Females unknown.

Males. The species is characterized by long erect pale setae of pronotum (adpressed or semierect setae absent) and anterior third of elytra.

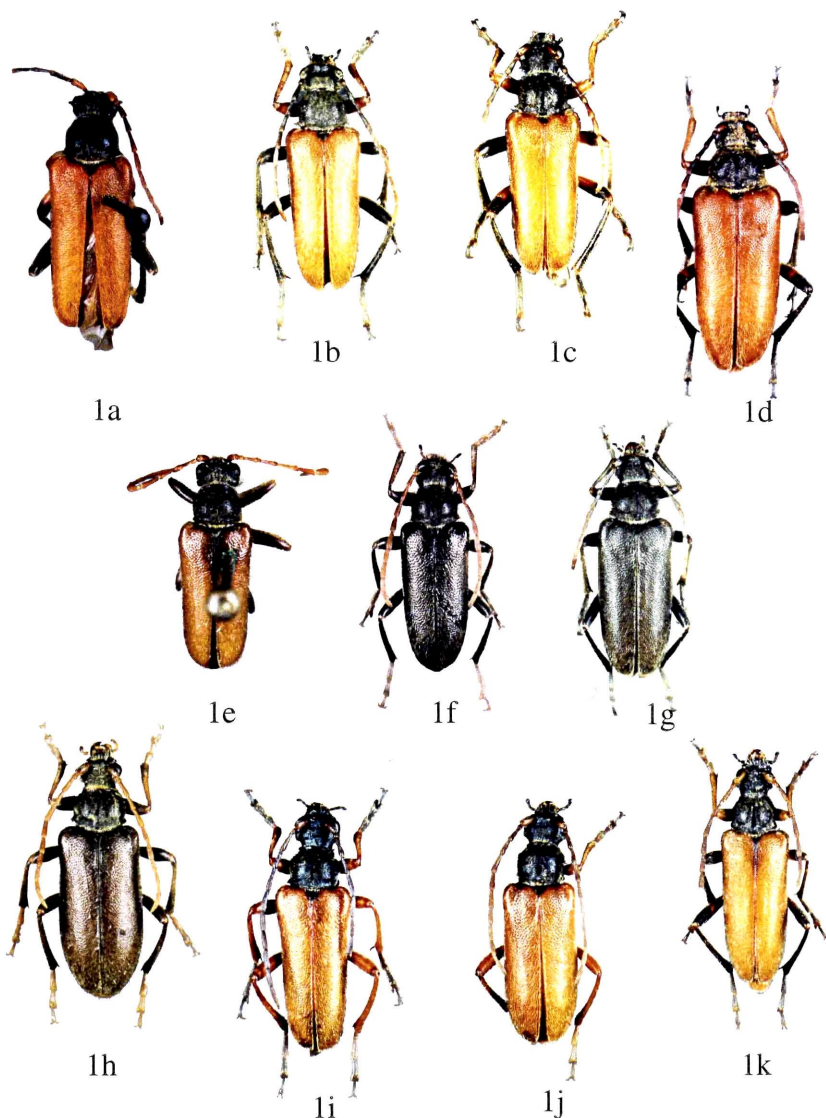


Fig. 1. *Cortodera reitteri reitteri*: a - male, lectotype, (Volgograd, Sarepta); b-c - males (Volgograd reg., Olkhovka env., 1-3.6.1999, M. Danilevsky leg.); d - female (Vogograd, Gornaia Poliana, 10.6.1993, E. Komarov leg.); e - male (Volgograd, Sarepta); f - male, ab. *alexandri*, holotype of *C. alexandri* (Volgograd reg., Olkhovka env., 6.5.1995, A. Dantchenko leg.); g - female, ab. *alexandri*, (Volgograd reg., Olkhovka env., 1-3.6.1999, M. Danilevsky leg.); h - female, ab. *obscuripennis* (Volgograd, Sarepta); i - male (Lugansk reg., Provalskaia Steppe, 1.6.1952, S. Medvedev leg.); j - female (Lugansk reg., Provalskaia Steppe, 1.6.1952, S. Medvedev leg.); k - female (Chertkovo, 12.6.1952, K. Arnoldi leg.).

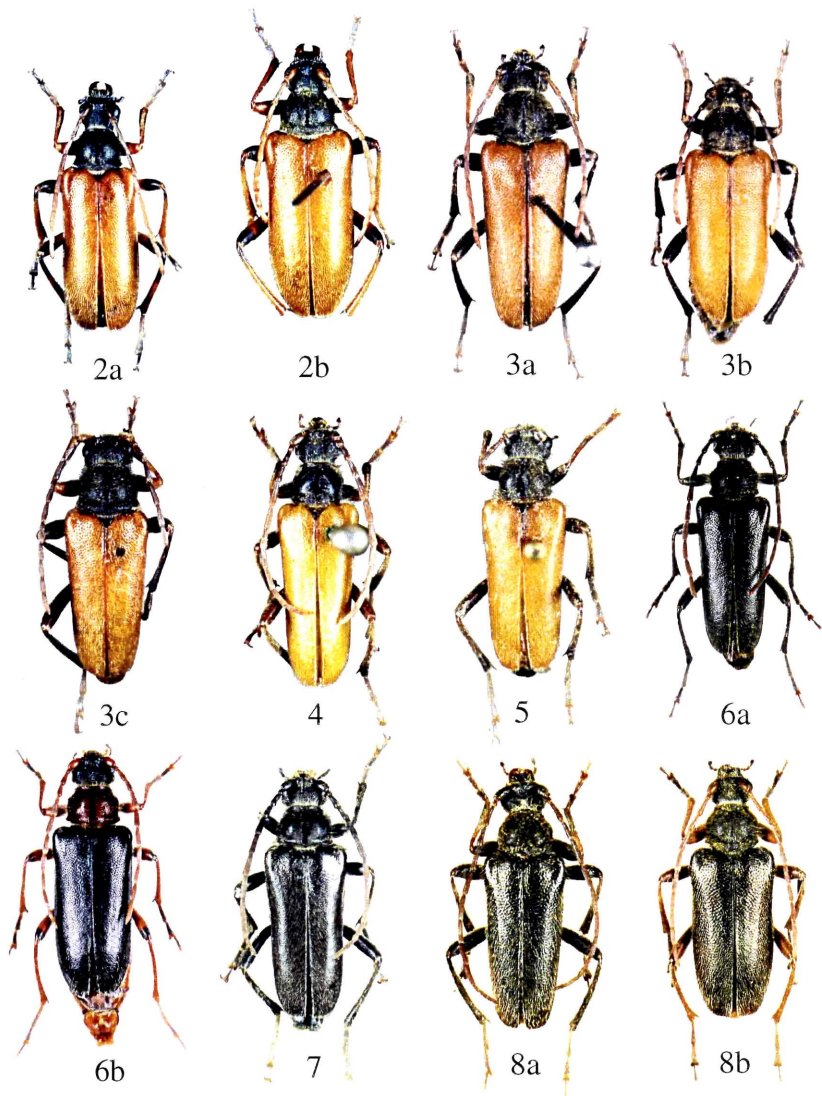


Fig. 2. *C. reitteri mikhailovi*, ssp. n. : a - female, holotype (Cheliabinsk reg., Arkaim Nat. Res., 31.5.1995, Iu. Mikhailov leg.); b - female, paratype (same loc., 17.6.1994, Iu. Mikhailov leg.). Fig. 3. *C. reitteri taurica*, stat. n. : a - male, holotype (Crimea, Simferopol); b - female (Simferopol, 20.5.1931); c - male, lectotype of *C. beckeriana*, (Simferopol env.). Fig. 4. *C. kiesewetteri kiesewetteri* : male, holotype (Astrakhan). Fig. 5. *C. kiesewetteri subtruncata*, ssp. n. : male, holotype (Samara). Fig. 6. *C. ciliata ciliata*, ssp. n. : male, holotype (East Kazakhstan, 12 km SE Bazombai, left bank of Sibinka River, 25.5.2000, Ju.E. Mikhailov leg.); b - female, paratype with same label. Fig. 7. *C. ciliata milaenderi*, ssp. n. : male, holotype (Ufa env., Alkino, 16.6.1978, G. Miländer leg.) Fig. 8. *C. analis* : a - male (Altai, Seminsky Pass, Topuchaia env., 7.7.1937, P. Valdaev leg.); b - female (same loc, 8.7.1937, P. Valdaev leg.).

Body relatively big, black, abdomen totally black, elytra yellow, antennae brownish or dark-brown. Palpi brownish, with apical joint strongly dilated apically.

Prothorax more or less transverse (from 1.2 to 1.3 times wider than long), distinctly widened posteriorly and here wider than near middle; lateral tubercles small, hardly developed or indistinct; pronotum with more or less dense punctuation, with rather special long and wide central smooth area. Elytra about 2.2 times wider than long; distinctly narrowed near middle. Legs black with often lightened anterior tibiae or brownish. Ventral body side with very long erect dense setae.

Apical abdomen segments never red or lightened; last visible sternite and pygidium with distinct emarginations, postpygidium widely rounded or sometimes with very small emargination. Aedeagus is sharpened apically, but just behind strongly widened.

Distribution (Fig. 18 : 13-15). - European part of Russia : Astrakhan env., Saratov region, Samara env.

Remarks. - I regard the name *Cortodera kiesenwetteri* Kraatz, 1876 as *nomen nudum*. Some uncertain morphological remarks were made by the author (« mit dunklen Flügeld. » and « im Habitus »), but as individual characters of specimens, not as characters of a taxon. The specimens (from Sarepta) described by G. Kraatz were received by him from A. Becker and are now preserved in the Deutsches Entomologisches Institut (Eberswalde). They belong to *C. reitteri* Pic.

The description of *C. kiesenwetteri* Pic, 1898 was based on 1 male (now in Paris) from A. Becker's collection received from G. Kraatz.

The species differs from *C. reitteri* by long dense erect setae of prothorax and anterior elytral third. Pronotum with specially wide and long smooth area. Metathorax and abdomen usually with long erect setae absent in *C. reitteri*. Antennae, legs and abdomen in *C. kiesenwetteri* can never be red or partly red. Aedeagus of *C. reitteri* less widened behind apex.

C. ruthena can be very similar to *C. kiesenwetteri* in colour and body size, but pronotum in *C. ruthena* always with much denser contiguous punctuation, with semierect or adpressed setae always present. Aedeagus of *C. ruthena* narrow, slightly evenly widened behind apex.

***Cortodera kiesenwetteri kiesenwetteri* Pic, 1898 (Fig. 4)**

Type locality. - Astrakhan env., Russia.

Only holotype male is known.

Description. - Body length : 9.8 mm; width : 3.1 mm.

Male. Elytra yellow; palpi, antennae and legs brownish, anterior tibiae lightened basally. Antennae with 1st joint longer than 3^d much longer than 4th and shorter than 5th. Prothorax about 1.2 times wider than long with small but distinct lateral tubercles; pronotum with relatively sparse punctuation, interspaces often larger than diameter of punctures. Elytra distinctly narrowed near middle. Postpygidium widely rounded apically.

Materials. - HOLOTYPE, male, « Astrach. IV » (Muséum d'Histoire Naturelle, Paris).

Distribution (Fig. 18 : 13). - South Russia, Astrakhan environs.

Remark. - Nominative subspecies is close to *C. k. subtruncata*, but differs by the structure of prothorax, which is relatively longer, with distinct lateral tubercles and sparse pronotal punctuation. Postpygidium without small emargination.

***Cortodera kiesenwetteri subtruncata*, ssp. n.** (Fig. 5)

Type locality. - South environs of Samara, Russia.

Cortodera kiesenwetteri ab. *subtruncata* Plavilstshikov, 1936 : 275, 534 (southwards Samara).

Only holotype, male with broken antennae (4 first joints present) is known.

Description. - Body length : 11.3 mm; width : 3.7 mm.

Male. Elytra yellow, but darker than in the nominative subspecies, with shortly blackish anterior part of suture; palpi, antennae and legs dark-brown, nearly black; antennae with 1st joint about as long as 3rd and much shorter than 4th; anterior tibiae lightened basally. Prothorax wider, about 1.3 times wider than long, lateral tubercles indistinct; pronotum with denser punctuation, though interspaces sometimes larger than diameter of punctures. Elytra not narrowed near middle. Postpygidium with very small emargination apically.

Materials. - HOLOTYPE, male, « Russia mer. or., fl. Volga, S. Samara » (Zoological Museum of Moscow State University).

Distribution (Fig. 18 : 14-15). - Central Russia : south Samara environs and possibly (as I did not see the specimen) Pugachev (earlier Nikolaevsk in Samara region) environs in Saratov region - the locality was mentioned by N. N. Plavilstshikov (1936 : 275) - but may be both records mean one locality.

Remarks. - The name « subtruncata » (as aberration) was attributed by N. N. Plavilstshikov (1936) to M. Pic. A single specimen in Plavilstshikov's collection is supplied with Pic's handwriting label « *Cortodera kiesenwetteri* v. *subtruncata* Mihi », but this name seems to be never published by M. Pic. The subspecies is close to the nominative one, but differs by darker elytral colour, wider prothorax with indistinct lateral tubercles, with denser pronotal punctuation; by slightly emarginated postpygidium.

***Cortodera ciliata* sp. n.** (Figs. 6-7)

Type locality. - 12 km S. E. Bazombai, Sibinka River, East Kazakhstan.

Description. - Body length in males : 10.5-11.7 mm, in female : 10.2 mm; body width in males : 3.3-4 mm, in female : 3.4 mm.

Body relatively big, males totally black (Figs. 7a, 8); a single known female (Fig. 7b) from the type locality with red antennae, legs, prothorax and abdomen.

Head black, with distinct temples, strongly angulated, in males parallelsided, in female a little diverging posteriorly; palpi dark-brown with more or less dilated apical joints. Antennae in males with black basal joints and dark-brown apical joints; in female red; in males nearly reaching posterior elytral fourth; in female a little shorter reaching posterior elytral third; in both sexes 5th joint longer than 1st, 1st longer than 3^d, 3^d longer than 4th; 2nd joint slightly longer than wide.

Prothorax in males black, in female red with black sternite; with more or less distinct tubercle (more developed in female) before middle of lateral side, at middle slightly narrower than at base. Pronotum slightly flattened posteriorly and here with very wide and long smooth, shining longitudinal area; pronotal punctuation very dense, the distance between punctures less than diameter of each, only near middle punctuation a little sparser and the distance between punctures more than diameter of each. In female pronotal punctuation a little sparser. In males pronotal pubescence totally consisting of long pale erect setae; in female pronotal pubescence short, orange; consisting of erect setae mixed with semierect and adpressed setae. Scutellum small triangular about as long as wide, with dense short setae, usually glabrous posteriorly and here smooth, in female glabrous with smooth posterior part.

Elytra in males tapering posteriorly, slightly narrowed near middle, in female nearly parallelsided; in males with short, pale, adpressed pubescence with numerous long erect setae in anterior fourth; in females elytral pubescence much shorter and sparser without erect setae.

Legs in males totally black without any lightened areas; in female red with darkened tarsi and black apices of middle and posterior femora; middle and posterior coxae also black; anterior coxae partly black with large anterior red areas.

Abdomen in males totally black with dense long erect and partly semierect setae, in females totally red with much shorter and sparser pubescence. Last abdominal sternite in males rounded with small emargination, pygidium with deeper emargination, postpygidium truncate or with very small emargination; in female last abdominal sternite and tergite widely rounded.

Aedeagus acute apically and widened before apex very similar to *C. kiesenwetteri*; parameres are in general similar to parameres of *C. kiesenwetteri* or *C. reitteri*.

Distribution (Fig. 18 : 16, 28). - Two very distant populations which represent two different subspecies are known : one in east Kazakhstan in hilly steppe (Sibinka River Valley about 40km southwards Ust-Kamenogorsk); another one in Central Russia, about 25 km westwards Ufa.

Remarks. - The new species is very close to *C. kiesenwetteri* and may be in fact its eastern subspecies. Only elytral colour can be now regarded as a good distinguishing character. Both known males of *C. kiesenwetteri* have yellow elytra, all 4 known males of *C. ciliata*, sp. n. with black elytra. Legs of *C. ciliata*, sp. n. are also much darker than in *C. kiesenwetteri*. New materials are necessary for better understanding of the taxonomical situation.

C. ciliata, sp.n. is not close to *C. analis*, though the type localities of both species are situated in Ust-Kamenogorsk environs : the distance in between is about 120 km. *C. ciliata*, sp.n. differs by much shorter head with narrower apical palpi joints and much shorter antennae; prothorax wider (1.3-1.4 wider than long); pronotum with sparser punctuation with large smooth shining middle elongated

area, which nearly absent in *C. analis*; erect elytral setae in males less distributed along elytral surface, in females - absent; short elytral pubescence much shorter than in *C. analis* and much more adpressed; elytra narrowed near middle while in *C. analis* lateral elytral borders nearly straight; pygidium strongly emarginated while in *C. analis* truncate; in *C. ciliata*, sp.n. anterior tibiae never lightened; male abdomen in *C. ciliata*, sp.n. never with red apex; in females of *C. analis* forms with red prothorax or totally red abdomen are unknown.

***Cortodera ciliata ciliata* ssp. n.** (Fig. 6)

Type locality. - 12 km S. E. Bazombai, Sibinka River, East Kazakhstan.

Description. - Body length in males : 10.5-11.5 mm, in female : 10.2 mm; body width in males : 3.3-3.7 mm, in female : 3.4 mm.

Prothorax in males narrow, about 1.3 times wider than long, in female - 1.4 times wider than long; lateral tubercles of prothorax more or less distinct; elytra in males from 2 to 2.2 times longer than wide, in female - 2 times longer than wide.

Materials. - HOLOTYPE, male, East Kazakhstan, 12 km S. E Bazombai, left bank of Sibinka River, hilly steppe, 25.5.2000, Ju.E. Mikhailov *leg.* (author's collection); PARATYPES : 2 males and 1 female with same label (author's collection).

Distribution (Fig. 18: 28). - Only one locality known : East Kazakhstan, Sibinka River Valley about 40 km southwards Ust-Kamenogorsk; in hilly steppe.

***Cortodera ciliata milaenderi*, ssp. n.** (Fig. 7)

Type locality. - Alkino, Ufa environs, Russia.

Description. - Body length : 11.7 mm; width : 3.8 mm.

Male. Prothorax wide, 1.4 times wider than long; lateral tubercles indistinct; elytra about 2.2 times longer than wide. Female unknown.

Materials. - HOLOTYPE, male, Bashkiria, Alkino (about 25 km westwards Ufa), 16.6.1978, G. Miländer *leg.* (Zoological Institute, S. Petersburg).

Distribution (Fig. 18 : 16). - East of Central Russia, Bashkiria, Ufa environs.

Remarks. - The unique known male considerably differs from the nominative subspecies by rather wide prothorax. The absence of females (female of nominative subspecies looks rather peculiar) and the large distance from the type-locality of *C. ciliata* make possible the species level of this form.

Derivatio nominis. - It is a big honour for me to dedicate this very rare taxon to a well known Estonian entomologist Georg Miländer, who found the unique known specimen.

***Cortodera analis* (Gebler, 1830) (Fig. 8)**

Type locality. - Leninogorsk env., East Kazakhstan.

Pachyta analis Gebler, 1830 : 189-190 (« *Riddersk* »).

Pachyta hirta Gebler, 1830 : 190 (« ... in montibus altaicis... »); Aurivillius, 1912 : 196 (*hirta* as a synonym of *Cortodera analis*); Gressitt, 1951 : 79 (*Leptura hirta*, as a synonym of *Cortodera analis*).

Grammoptera holosericea : Gebler, 1848 : 423 (part.; as a synonym of *Pachyta analis* = *P. hirta*).

Cortodera holosericea : Aurivillius, 1912 : 196 (*holosericea* Gebl. as a synonym of *Cortodera analis*).

Cortodera analis : Pic, 1898 : 115, 117; Aurivillius, 1912 : 196; Winkler, 1929 : 1154; Plavilstshikov, 1927 : 131-133; 1936 : 266, 283-284, 537; Gressitt, 1951 : 79 (original description is attributed to *Leptura*); Kostin, 1973 : 142; Tsherepanov, 1979 : 229, 231; Lobanov & al., 1981 : 799.

Leptura holosericea : Gressitt, 1951 : 79 (*Leptura holosericea* Gebl. as a synonym of *Cortodera analis*).

Cortodera analis var. *ruficornis* Pic, 1926 : 6 (« *Altai* »); Winkler, 1929 : 1154 (as aberratio); Plavilstshikov, 1936 : 283, 537 (as aberratio).

Cortodera analis ab. *nigriventris* Plavilstshikov, 1936 : 283, 537.

Cortodera analis var. *hirta* : Pic, 1898 : 115, 117; Plavilstshikov, 1936 : 283, 537 (as aberratio).

Cortodera haemorrhoidalis Pic, 1898 : 114 (« *Siberie* »); Winkler, 1929 : 1153 (*haemorrhoidalis*); Plavilstshikov, 1936 : 284, 537 (*haemorrhoidalis*, as a synonym of *C. analis*); Gressitt, 1951 : 79 (*haemorrhoidalis*, as a synonym of *C. analis*).

Description. - Body length in males : 8.2-10.8 mm, in females : 10-11.5 mm; body width in males : 2.8-3.5 mm, in females : 3.3-3.8 mm.

Body relatively big, black, often with red apex of abdomen.

Head with distinct temples, more or less angulated, in females parallelsided, in males converging posteriorly; palpi usually black or dark-brown, with more or less dilated, often ax-like apical joints. Antennae dark-brown, nearly black with usually more or less lightened basal joints, sometimes brown basally and reddish distally; in females, sometimes totally red (ab. *ruficornis*); in males nearly reaching elytral apices, very rarely a little longer, usually a little shorter; in females reaching posterior elytral fourth; 5th joint slightly longer or about as long as 1st, 3rd shorter than 5th, but longer than 4th; or 1st joint short, shorter than 3rd, usually about equal to 3rd; 2nd joint usually longer than wide, sometimes about as long as wide.

Prothorax distinctly widened near middle, here usually as wide as near base, sometimes strongly angulated at middle and so wider here than near base; in males from 1.1 to 1.2 times wider than long, in females from 1.1 to 1.4 times wider than long. Pronotum usually evenly convex, or slightly pressed inwards along middle; pronotal punctuation very dense, the distance between punctures usually less than diameter of each, sometimes punctuation a little sparser in the middle with distance between punctures more than diameter of each; smooth elongated area in the middle very small and narrow, indistinct or totally absent. Pronotal pubescence in males consists of long pale erect setae, very rare long erect setae mixed with shorter semierect setae; in females pronotal pubescence consists of shorter and darker erect setae mixed with semierect and adpressed setae, sometimes adpressed setae nearly absent, or contrary only a few erect setae present. Scutellum small usually more or less triangular about as long as wide, with several short setae usually moved anteriorly or nearly glabrous.

Elytra in males tapering posteriorly, in females parallelsided, never narrowed in the middle; in males about 2.2 times longer than wide, in females - from 2.1 to 2.2; with moderately long, pale, semierect pubescence; in males numerous long erect setae are distributed from elytral base to about middle, in females several erect setae present near humeri.

Legs totally black or dark-brown with slightly lightened anterior tibiae, or only bases of anterior tibiae more or less lightened (ab. *hirta*); sometimes in females legs totally red with darkened tarsi, or often femora apices black, or tibiae apices also darkened. Males with red antennae or red legs are not represented in known materials and may be absent in nature.

Abdomen with dense long erect and partly semierect setae; usually black with red last visible segment; sometimes 4th sternite totally or partly red; in red-legs females 3rd sternite also partly reddish; often abdomen totally black. Last abdominal sternite in males rounded with small emargination, pygidium widely truncate, postpygidium always rounded; in females last abdominal sternite and tergite widely rounded, last sternite often with very small emargination.

Aedeagus acute apically and strongly widened before apex, stronger than in *C. kiesenwetteri* and much stronger than in *C. reitteri*; parameres are in general similar to parameres of *C. kiesenwetteri* or *C. reitteri*.

M. Pic (1898) mentioned for the pair of his *Cortodera haemorrhoidalis* 13-14 mm, but such size is not confirmed by available materials.

Materials. - 3 males Altai, Shebalino, 17.6.1932, P. Valdaev *leg.*; 1 male and 1 female, Altai, Shebalino, 30.6.1934, P. Valdaev *leg.*; 1 male and 2 females, Altai, Shebalino, 23.6.1937, P. Valdaev *leg.*; 5 males and 9 females, Altai, Seminsky Pass, Topuchaia env. (about 10km northwards the pass), 4-5000 f., 7-8.7.1937, P. Valdaev *leg.*; 1 male, « Sibiria, Solonetschnoje (possibly Soloneshnoe of about 120 km south-westwards Biisk), 5.6 » (Zoological Museum of Moscow State University); 2 males, Altai, Shebalino, 24.7.1937 (Zoological Institute, S. Petersburg); 1 male, Altai, Seminsky Pass, Topuchaia env., 4-5000 f., 8.7.1937, P. Valdaev *leg.* (author's collection).

Distribution (Fig. 18 : 27, 29-30). - The type locality of the species - « Riddersk » is now Leninogorsk in East Kazakhstan (about 45 km north-eastwards Ust-Kamenogorsk), but no specimens are available from here. Only one locality is reliably proved by available materials : Shebalino environs in Altai Republic of Russia, northwards Seminsky Pass. Another possible locality is Soloneshnoe in Altai region of Russia, about 120 km south-westwards Biisk. N. N. Plavilstshikov's (1936) record for Kondoma River Valley (near Novokuznetsk) is not confirmed by available materials.

Remarks. - Under the names *Pachyta analis* and *P. hirta* seems to be described females (with red legs) and a male (with only bases of anterior tibiae yellowish) of one species. The synonymization of both names was introduced by F. Gebler (1848) and then generally accepted. I do not know the types, but authenticity of the traditional interpretation of both names is indirectly proved by reddish abdomen apex mentioned in both original descriptions.

I accepted N. N. Plavilstshikov's (1927) synonymization *Cortodera analis* (Gebl.) = *C. haemorhoidalis* Pic, as he had studied one of syntypes, and *Cortodera analis* was unknown for M. Pic, though the size of M. Pic's syntypes (13-14 mm) looks exceptionally big.

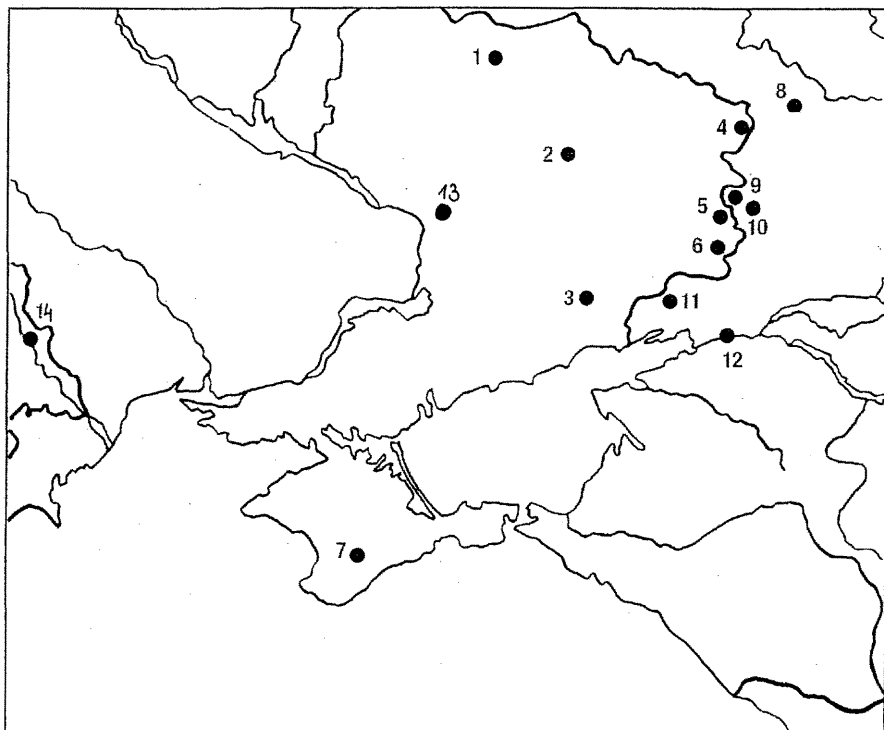


Fig. 17. Localities of *Cortodera* taxa in Moldova, Ukraine and West Russia :

1 - Kharkov (*C. r. reitteri*); 2 - Bogorodichnoe, Donetsk reg. (*C. ruthena rossica*); 3 - Veliko-Anadol, Donetsk reg. (*C. r. reitteri*); 4 - « Streletzkaia Steppe » - a section of Lugansk State Natural Reserve, near Chertkovo, Lugansk reg. (*C. r. reitteri*, *C. ruthena rossica*); 5 - Kruzhilovka, Lugansk reg. (*C. ruthena rossica*); 6 - « Provalskaia Steppe » - a section of Lugansk State Natural Reserve, North Donetz River Valley, Lugansk region (*C. r. reitteri*); 7 - Simferopol (*C. r. taurica*); 8 - Tikhiaia Zhuravka, Chertkovo distr., Rostov reg. (*C. r. reitteri*, *C. ruthena rossica*); 9 - Mitiakinskaia, Tarasovsky distr., Rostov reg. (*C. ruthena rossica*); 10 - Gorodishchevo forest farm, Tarasovsky distr., Rostov reg. (*C. khatchikovi*); 11 - Uspenskaia, Matveev-Kurgan distr., Rostov reg. (*C. r. reitteri*); 12 - Rostov-on-Don (*C. r. reitteri*); 13 - Bulakhovka, Dnepropetrovsk reg. (*C. ruthena rossica*); 14 - Dubossary, Moldova (*C. moldovana*).

To be continued ...

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