

The Genus *Cortodera* Mulsant, 1863 (Cerambycidae: Coleoptera) in Turkey

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Data are presented on the occurrence of 15 species of the genus *Cortodera* Mulsant, 1863 in Turkey. The faunistic data add to our knowledge on their distribution in Turkey. The occurrence of *Cortodera cirsii* Holzschuh, 1975, *C. holosericea* (Fabricius, 1801), *C. pseudomophlus* Reitter, 1889, and *C. alpina xanthoptera* Pic, 1898 is determined in this work, thereby adding four taxa to the known taxa in Turkey. One of them, *C. holosericea*, is reported for the first time in the Turkish fauna, and a short description is given. *C. cirsii* and *C. omphloides* Holzschuh, 1974 are endemic to Turkey. *C. umbripennis* Reitter, 1890 (in N. Lodos, 1998) is determined as a synonym of *C. alpina* (Menetries, 1832).

KEY WORDS: *Cortodera holosericea*, new record; fauna; *Cortodera*; Cerambycidae; Coleoptera; Turkey.

INTRODUCTION

Beetles of the family Cerambycidae (longhorn beetles) are of economic importance. Larvae of longhorn beetles develop in plant tissues. The ecological role of longhorn beetles is to decompose plant material such as tissues of woody plants (under conditions ranging from healthy to moribund to dead and decomposing) and herbaceous plants (both living and dead) (24,26) and humus. Death and decomposition are vital to the health of any ecosystem, for they enable the recycling of nutrients which would otherwise be permanently locked up in dead plant material.

The beetles of the genus *Cortodera* feed generally in roots of broadleaved trees (*e.g.* *Quercus*, *Prunus* and *Picea*) and roots of herbaceous plants (*e.g.* *Ranunculus*, *Centaurea*). The longhorn beetle fauna of Turkey has been studied intensively since the last century and a number of papers presenting chiefly faunistic data have appeared (1-22,24-38). Using literature data, Lodos (26) estimated that approximately 584 cerambycid species (ten *Cortodera* species) might occur in Turkey.

MATERIALS AND METHODS

The material for this study was collected by the author during three years (1991, 1997 and 2001) from different localities in Turkey, mainly Central Anatolia in the Mediterranean region, and deposited in Gazi University. Almost all material was obtained by beating broadleaved trees or found on the flowers of herbaceous plants. Some of the information was obtained from the literature cited herein.

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The data are given according to the following outline: Ankara⁽¹⁾ , Kızılcahamam⁽²⁾, Güvem⁽³⁾, 1200 m⁽⁴⁾, 14.05.1997⁽⁵⁾, where:

(1) Administrative district (Province)

(2) Town

(3) Village

(4) Altitude

(5) Collecting date (day/month/year).

The cited data are complemented by the names of trees or herbaceous plants from which the species was beaten or swept.

The data on **Body length, Life cycle, Adults present in, Host plant, Material examined, General distribution, and Distribution in Turkey** under the heading for each species are given in the text. The data which were not obtained by the author, are not presented in this study. The main or important (but not all) synonyms are also given. General distribution data on each species in Turkey have been given by Althoff and Danilevsky (4), Bense (5), Danilevsky (13) and Hoskovec and Rejzek (23). The distribution in Turkey is presented by a list of provinces and the author's name, or only by listing the authors assigned to them.

RESULTS

Fifteen species and 19 taxa of species group (with subspecies) of the genus *Cortodera* were determined to occur in Turkey during this study.

Cortodera alpina ssp. *alpina* (Menetries, 1832)

Adults present in: May.

General distribution: Caucasus, Balkan Peninsula.

Distribution in Turkey: Refs. 13, 26; Van (3); Ankara, Adana (14).

Cortodera alpina ssp. *umbripennis* Reitter, 1890 = *armeniaca* Pic, 1898

General distribution: Caucasus, ? Balkan Peninsula.

distribution in Turkey: Elazığ (22); Ref. 13.

Cortodera alpina ssp. *xanthoptera* Ganglbauer

Host plant: Umbelliferae

Distribution in Turkey: Ref. 6.

Cortodera cirsii Holzschuh, 1975

Life cycle: 1 year [?].

Adults present in: May–June.

Host plant: *Cirsium* sp. (Asteraceae), *Ferula* sp.

Material examined: Adana: Hasanbeyli, Nurdağı, 1100–1250 m, 03.06.2001.

General distribution: Endemic to Turkey.

Distribution in Turkey: Osmaniye (21); Adana (2,30).

Cortodera colchica ssp. *colchica* Reitter, 1890
= *deyrollei* Pic 1894

Body length: 6.5–11 mm.

Life cycle: 1 year [?].

Adults present in: May–July. Adults sitting in the host's flowers.

Host plant: *Centaurea* sp. (Asteraceae)

Material examined: Ankara: Kızılcahamam, Yukarı Çanlı, 1540 m, 14.06.1997. Aksaray: Central, 1030 m, 20.05.1997.

General distribution: Caucasus, Transcaucasia, ? Lebanon.

Distribution in Turkey: Refs. 13, 26, 32. Adıyaman (23,29,30); Artvin (31); Adana, Hakkari, Bingöl (22); Isparta, Kayseri, Antalya (3).

Cortodera colchica ssp. *rutilipes* Reitter, 1890

Distribution in Turkey: Erzurum (28).

Cortodera discolor Fairmaire, 1866

Body length: 8–12 mm.

Adults present in: May–June.

Host plant: *Chrysanthemum* sp.

Material examined: Konya: Kulu, Tavşanlı, 1000 m, 17.05.1997. Niğde: Ulukışla, Central, 1400 m, 23.06.1997. Aksaray: Central, 1030 m, 20.05.1997. Içel: Kirobası, Central, 1335 m, 01.06.2001.

General distribution: Greece (excluding Crete), Bulgaria.

Distribution in Turkey: Ref. 26. Ankara (3).

Cortodera flavimana (Waltl, 1838)

Body length: 8–12 mm.

Life cycle: 1 year.

Adults present in: April–August. Found on flowers, especially Ranunculaceae.

Host plant: *Ranunculus* sp. Larvae probably feed in or at the roots of yellow flowering *Ranunculus* species.

Material examined: Ankara: Kızılcahamam, Güvem, 1000 m, 1065 m, 14.05.1997. Ankara: Kızılcahamam, Yukarı Çanlı, 1400 m, 1540 m, 14.06.1997. Ankara: Kızılcahamam, Yukarı Çanlı, 1250 m, 28.05.1997. Aksaray: Ortaköy, Hocaveli, 1260 m, 22.06.1997. Kayseri: Yahyalı, Derebağı, 1280 m, 02.06.1997. Ankara: Kızılcahamam, Soğuksu National Park, 1150 m, 1700 m, 21.06.1991. Ankara: Kızılcahamam, Soğuksu National Park, 1300 m, 1400 m, 03.07.1991. Aksaray: Sivrihisar, Central, 1710 m, 02.06.1997. Ankara: Kızılcahamam, Soğuksu National Park, 1400 m, 04.07.1991. Aksaray: Ağaçören, Yenişabanlı, 1340 m, 21.06.1997. Ankara: Kızılcahamam, Güvem, 1100 m, 28.05.1997.

General distribution: Serbia, Macedonia, Greece (excluding Crete), Bulgaria, Romania, Hungary.

Distribution in Turkey: Refs. 4, 6, 26. Bolu (23); Sinop, Bolu, Kastamonu (31); Erzurum (28); Ankara (18); Kütahya, Konya (2); Afyonkarahisar (7); Erzurum, Isparta, Izmir, Istanbul (14).

Cortodera holosericea (Fabricius, 1801) (New record for Turkey; Fig. 1)

Body length: 8–14 mm.

Life cycle: 1 year, with pupation probably occurring in Spring in the soil.

Adults present in: April–June, found on the host-plant and on flowers. These beetles were collected on the host-plant (*Centaurea triumfetti* [Asteraceae]).

Host plant: Development inadequately known. Larvae at first in the roots of herbaceous plants (*Centaurea triumfetti*), later probably in the soil, feeding on the roots.

Material examined: Ankara: Kızılcahamam, Soguksu National Park, 1350 m, 07.06.1997.

General distribution: SE Europe, reaching NE Italy, Austria, southern Slovakia, Romania, Hungary, Czech Republic, Ukraine (excluding Crimea), southern part of European Russia, Balkan Peninsula.

Head and pronotum black. Last segment of maxillary palp distinctly expanded at apex, sometimes nearly hatchet-shaped, all segments dark. Pronotal punctuation is denser than the elytra. Elytra black. Abdomen black, usually reddish apex. Legs black. Antennae black, of medium length. Head, pronotum, elytra, legs and remainder of the body with fine yellowish-white distinctly erect or semi-erect pubescence.

Cortodera humeralis ssp. *humeralis* (Schaller, 1783)

Body length: 7–12 mm.

Life cycle: 1 year. Larvae overwinter in the soil and pupate in spring.

Adults present in: May–June. Found on flowers.

Host plant: *Quercus*, *Prunus*, *Crataegus*. Larvae live in surface soil layer under deciduous trees and feed on buried twig fragments, shallow dead roots, etc.

Material examined: Ankara: Kızılcahamam, Soğuksu National Park, 1100 m, 07.06.1997.

Ankara: Kızılcahamam, Güvem, 1000 m, 26.06.1997.

General distribution: France (excluding Corsica), Italy (excluding Sardinia and Sicily), Croatia, Bosnia and Herzegovina, Serbia, Greece (excluding Crete), Bulgaria, Romania, Hungary, Austria, Switzerland, Czech Republic, Slovakia, Germany, Belgium, Poland, Ukraine (excluding Crimea), middle part of European Russia, Balkan Peninsula.

Distribution in Turkey: Refs. 4, 23.

Cortodera humeralis ssp. *orientalis* Adlbauer, 1988

Adults present in: May–June.

Host plant: *Quercus*.

Distribution in Turkey: Ankara, Bolu, Antalya (3); Adana (2).

Cortodera omophloides Holzschuh, 1974

Body length: 8–11 mm.

Life cycle: 1 year [?].

Adults present in: May–June.

Host plant: *Crataegus* sp. (Rosaceae), *Quercus* sp.

General distribution: Endemic to Turkey.

Distribution in Turkey: İçel (2,21,23).



Fig. 1. *Cortodera holosericea* ssp. *holosericea* (Fabricius, 1801)

***Cortodera pseudomophlus* Reitter, 1889**

Adults present in: June – July.

General distribution: Caucasus, Central Asia, Iran, Afganistan.

Distribution in Turkey: Kahramanmaraş, Erzurum (3).

***Cortodera pumila* Ganglbauer, 1881**

Adults present in: June–July

Host plant: *Pinus*, *Crataegus*.

General distribution: Caucasus, Iran.

Distribution in Turkey: Refs. 13, 26. Kars (31); Tokat, Kastamonu (3).

***Cortodera ranunculi* Holzschuh, 1975**

Distribution in Turkey: Ref. 26. Muş (21).

Cortodera simulatrix Holzschuh, 1975

Distribution in Turkey: Ref. 26. Artvin (21).

Cortodera syriaca Pic, 1901

Body length: 8–11 mm.

Life cycle: 1 year [?].

Adults present in: May–June.

Host plant: Monophagous. *Gundelia tournefortii* (Asteraceae).

Material examined: Aksaray: Central, 1030 m, 20.05.1997.

General distribution: Caucasus, Armenia, Near East.

Distribution in Turkey: Refs. 13, 26. Kahramanmaraş, İçel (2); Adıyaman (23,29); Muş, Kahramanmaraş (30).

Cortodera transcaspica Plavilstshikov, 1936

= *lobanovi* Kaziuchitz, 1988

= *persica* Plavilstshikov, 1936

General distribution: Caucasus, Central Asia, Iran, Afghanistan.

Distribution in Turkey: Ref. 13.

Cortodera uniformis Holzschuh, 1975

Distribution in Turkey: Ref. 26. Gümüşhane (21).

DISCUSSION

There have been several works published recently on the fauna of Turkish *Cortodera* Mulsant, 1863 (4,13,23,26), with Lodos (26) providing the main paper on this subject. The data of Hoskovec and Rejzek (23) and Danilevsky (13) appear as a computer database.

According to Althoff and Danilevsky (4), the fauna of the European part of Turkish *Cortodera* Mulsant, 1863 include only two species: *C. flavimana* (Waltl, 1838) and *C. humeralis* (Schaller, 1783). According to Lodos (26), the fauna of Turkish *Cortodera* Mulsant, 1863 comprises ten species: *C. colchica* Reitter, 1890, *C. discolor* Fairmaire, 1866, *C. flavimana* (Waltl, 1838), *C. omophloides* Holzschuh, 1974, *C. pumila* Ganglbauer, 1881, *C. ranunculi* Holzschuh, 1975, *C. simulatrix* Holzschuh, 1975, *C. syriaca* Pic, 1901, *C. umbripennis* Reitter, 1890 and *C. uniformis* Holzschuh, 1975. In the computer database of Hoskovec and Rejzek (23), the fauna of Turkish *Cortodera* Mulsant, 1863 includes only five species: *C. colchica* Reitter, 1890, *C. syriaca* Pic, 1901, *C. flavimana* (Waltl, 1838), *C. humeralis* (Schaller, 1783), *C. omophloides* Holzschuh, 1974. In the computer database of Danilevsky (13), the fauna of Turkish *Cortodera* Mulsant, 1863 includes only five species. These are *C. pumila* Ganglbauer, 1881, *C. syriaca* Pic, 1901, *C. colchica* ssp. *colchica* Reitter, 1890, *C. alpina* ssp. *umbripennis* Reitter, 1890 and *C. transcaspica* Plavilstshikov, 1936.

According to my work, the fauna of Turkish *Cortodera* Mulsant, 1863 comprises a total of 15 species, which are listed hereunder.

Genus: *Cortodera* Mulsant, 1863

- alpina* (Menetries, 1832)
ssp. *alpina* (Menetries, 1832)
ssp. *umbripennis* Reitter, 1890
= *armeniaca* Pic, 1898
ssp. *xanthoptera* Pic, 1898
cirsii Holzschuh, 1975
colchica Reitter, 1890
ssp. *colchica* Reitter, 1890
= *deyrollei* Pic 1894
ssp. *rutilipes* Reitter, 1890
discolor Fairmaire, 1866
flavimana (Waltl, 1838)
***holosericea* (Fabricius, 1801) (New record for Turkey)**
humeralis (Schaller, 1783)
ssp. *humeralis* (Schaller, 1783)
ssp. *orientalis* Adlbauer, 1988
omophloides Holzschuh, 1974
pseudomophlus Reitter, 1889
pumila Ganglbauer, 1881
ranunculi Holzschuh, 1975
simulatrix Holzschuh, 1975
syriaca Pic, 1901
transcaspica Plavilstshikov, 1936
= *lobanovi* Kaziuchitz, 1988
= *persica* Plavilstshikov, 1936
uniformis Holzschuh, 1975

As the above list makes clear, the fauna of Turkish *Cortodera* Mulsant, 1863 comprises a total of 15 species and 19 taxa of species group (with subspecies). Prior to this work, only 12 species of *Cortodera* Mulsant, 1863 had been known from Turkey. Thus, four taxa are added to the fauna of Turkish *Cortodera* Mulsant, 1863 with this work: *C. cirsii* Holzschuh, 1975, *C. holosericea* (Fabricius, 1801), *C. pseudomophlus* Reitter, 1889 and *Cortodera alpina xanthoptera* Pic, 1898. One of them, *Cortodera holosericea* (Fabricius, 1801) is a new record for Turkish *Cortodera* Mulsant, 1863. This species is represented by a nominative subspecies, *Cortodera holosericea* ssp. *holosericea* (Fabricius, 1801), in Turkey. It is a new record for Turkish *Cortodera* Mulsant, 1863.

Cortodera colchica ssp. *rutilipes* Reitter, 1890 was recorded only from Erzurum (28), without any comments.

Cortodera rubripennis Pic, 1891 was mentioned only from Adıyaman in Turkey (23,29). However, M. Rejzek told me that it had been identified inaccurately. It therefore seems that *C. rubripennis* Pic, 1891 is not correct for Turkey.

Cortodera umbripennis Reitter, 1890 was determined (26) as a synonym of *C. alpina* (Menetries, 1832), but I accepted it as the subspecies of *C. alpina* (Menetries, 1832), as in Danilevsky (13).

Cortodera transcaspica Plavilstshikov, 1936 is given only in the computer database of Danilevsky (13).

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