

**AN EVALUATION ON THE KNOWN TAXA OF
NECYDALINAE AND APATOPHYSEINAE
FROM TURKEY WITH A SYN. NOV.
(COLEOPTERA: CERAMBYCIDAE)**

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ABSTRACT: As a summary of the present paper, the taxa of Turkish Necydalinae and Apatophyseinae fauna that were recorded by various authors from different localities of Turkey are evaluated zoogeographically. For this reason, the distribution patterns in Turkey and rest of the world for each taxon of related subfamilies are determined. Also, chorotypes for each taxon are given in the part of zoogeographical remarks. As a result of the present paper, *Necydalis hadullai* Szallies, 1994 is a syn. nov. of *Necydalis ulmi* Chevrolat, 1838.

KEY WORDS: Necydalinae, Apatophyseinae, Cerambycidae, Coleoptera, Zoogeography, Fauna, Turkey.

The longhorn beetles or Cerambycidae are classified together with Chrysomelidae and Bruchidae in the superfamily Chrysomeloidea. But, some authors recognized Cerambycidae as a separate superfamily Cerambycoidea (Svacha & Danilevsky, 1986). Cerambycidae sensu stricto is divided into several subfamilies. These are Parandrinae, Prioninae, Lepturinae, Necydalinae, Spondylidinae, Apatophyseinae, Cerambycinae and Lamiinae. Parandrinae are not represented in Turkey. Moreover, as seen below, the subfamilies Necydalinae and Apatophyseinae are represented only a few species in Turkey. Also, the recorded data of both subfamilies Necydalinae and Apatophyseinae from Turkey have not been adequate since only a few works have been presented on Turkish fauna of Necydalinae and Apatophyseinae until now.

Subfamily Necydalinae

Tribe Necydalini

Genus *Necydalis* Linnaeus, 1758

***Necydalis hadullai* Szallies, 1994**

Current records from Turkey: The species is known only from type locality in Turkey. Type loc.: Isparta province: Kovada, S. Eğridir.

Remarks: This name is available but invalid as being a junior subjective synonym of *Necydalis ulmi* Chevrolat, 1838. The species is currently placed in the genus *Necydalis*.

As seen below, Szallies (1994) stated that "*Necydalis hadullai* n. sp. seems to be substitute for *Necydalis ulmi* in the South Turkey; the differences seem to me significant enough to describe *Necydalis hadullai*

n. sp. as own species.” However, *Necydalis ulmi* is recorded for the first time for Turkey in 2005. The real status of distribution patterns in Turkey of *N. ulmi* need to be clarified. Szallies (1994) mentioned “*the last sternite only behind the middle most broadly, stretched. The anal plate (between tergite and sternite) is notched. The points of the paramers are rounded*” as the most diagnostic characters. But the original description of *Necydalis hadullai* is based on only one specimen. These characters are very likely individual variations. Moreover, the other mentioned differences between *N. hadullai* and *N. ulmi* by Szallies (1994) does not seem distinguishable enough. Finally we think the original description of *N. hadullai* does not seem significant enough to describe a new species.

The original description of *N. hadullai* was given by Szallies (1994) as follows:

“Beschreibung: Flügeldecken kastanienbraun, hintere Seitenränder geschwärzt. Fühler einfarbig kastanienbraun, die vier ersten Glieder glänzender, die restlichen matt. Die Beine ebenfalls kastanienbraun, Hinterschenkel und -tibien an den Spitzen schwarz, die Spitze der Mittelschenkel auf jeder Seite mit schwarzem Fleck. Hintertarsen gelb. Das 1. Sternit bis auf den Hinterrand, das 4. und 5. ganz schwarz, ebenso das letzte Tergit, sonst ist der Hinterleib rotbraun.

Schildchen schwarz, gerunzelt und fast flach, hinten eine kleine Längsvertiefung aufweisend. Zueinander gelegene Seitenränder der Flügeldecken zum Apex hin deutlich verbreitert. - Halsschild mit zwei glatten Beulen und einem Wulst vor dem Hinterrand. Um diese Erhebungen herum lang goldgelb behaart (wie bei Necydalis ulmi Chevrolat).

Letztes Sternit erst hinter der Mitte am breitesten, gestreckt. Die Analplatte (schaut hinten zwischen Tergit und Sternit heraus) ist eingekerbt (Abb. 2). Die Spitzen der Parameren sind abgerundet (Abb. 4).

Grösse 31 mm.

Anmerkung: Necydalis hadullai n. sp. steht der bekannten Art Necydalis ulmi nahe, so dass die Beschreibung ihn in erster Linie von diesem abgrenzt; ergänzende Zeichnungen der wesentlichen Merkmale beider Arten sollen dabei helfen (Abb. 2 - 5). Necydalis hadullai n. sp. scheint Necydalis ulmi in der Südtürkei zu ersetzen; die Unterschiede scheinen mir bedeutend genug, Necydalis hadullai n. sp. als eigene Art zu beschreiben.

Das Tier wurde von Quercus geklopft.”

***Necydalis major major* Linnaeus, 1758**

Current records from Turkey: The species has been reported by Acatay (1948, 1961, 1968) and Lodos (1998) from Turkey without exact localities.

Range: Europe, Siberia (Winkler, 1924-1932); European Russia, Ciscaucasia, the Black Sea coast of Caucasus, all Siberia, Sakhalin, Europe, Japan (Danilevsky & Miroshnikov, 1985); temperate Palaearctics

from Europe to Far East (Svacha & Danilevsky, 1986); Europe (Bense, 1995); Europe, European Russia, European Kazakhstan (Althoff & Danilevsky, 1997); Europe, Caucasus, Transcaucasia, Siberia, In Asia: from Northern Kazakhstan, Altai Mts., Tuva, Amur basin and Primorie region to China, Korean peninsula and Sakhalin (Sama, 2002); Europe, Caucasus, Balkan peninsula, Crimea peninsula, Siberia, Far East of the Russia, China and Korea (Danilevsky, 2005).

Remarks: The species *Necydalis major* Linnaeus, 1758 has two subspecies in the world. These are the nominate *Necydalis major major* Linnaeus, 1758 and the other *Necydalis major aino* Kusama, 1975. This species is represented by nominative subspecies in Turkey. Unfortunately any record with exact locality in Turkey has not been given according to the literature. For this reason the real status in Turkey of this taxon need to be clarified. A general distribution of this taxon is given above. The other subspecies *Necydalis major aino* Kusama, 1975 occurs only in Japan, Sakhalin and Kurile Islands and ? Mongolia according to Kusama & Takakuwa (1984) and Danilevsky (2005). Also accordnig to Danilevsky (2005) *Necydalis major major* Linnaeus, 1758 and *Necydalis major aino* Kusama, 1975 are represented in Russia by subspecies.

***Necydalis sabatinelli* Sama, 1994**

Current records from Turkey: There are four records from Turkey. These are: Type loc.: Bolu province: Abant; Bolu province: Abant as *Necydalis* sp. (Sama, 1982); Bolu province: Abant (Tauzin, 2000); Bolu province: Yedigöller National Park (Malmusi & Saltini, 2005).

Range: Endemic to Turkey. Apparently distributed only in a local area of North Turkey.

***Necydalis ulmi* Chevrolat, 1838**

= *Necydalis hadullai* Szallies, 1994 **syn. nov.**

Current records from Turkey: There is only one record from European Turkey as Kırklareli province: Demirköy (Malmusi & Saltini, 2005) and also there is only one record from South-West Anatolia as Isparta province: Kovada, S. Eğridir (as *Necydalis hadullai* Szallies, 1994).

Range: Europe (Winkler, 1924-1932); Caucasus, Transcaucasus, Europe, Southwest Ukraine (Danilevsky & Miroshnikov, 1985); Central and Southern Europe, Caucasus, Transcaucasia (Svacha & Danilevsky, 1986); Europe (Bense, 1995); (Althoff & Danilevsky, 1997); Europe, Caucasus, Transcaucasia (Sama, 2002); Europe, Balkan Peninsula, Caucasus (Danilevsky, 2005).

Remarks: The species has been known only from European Turkey (=Thracia) of Turkey until this study. At present, it is also known in South-West Anatolia due to the record of Isparta province of *Necydalis hadullai* Szallies, 1994 **syn. nov.** The real status of distribution patterns in Turkey of this taxon need to be clarified.

Subfamily Apatophyseinae
Tribe Apatophyseini
Genus *Apatophysis* Chevrolat, 1860
***Apatophysis anatolica* Heyrovsky, 1938**

Current records from Turkey: There are three records from Turkey. These are: Type loc.: Konya province: Akşehir; Aksaray province: Tuz Lake, Eskil (Adlbauer, 1992); Konya province: Karapınar (Özdikmen & Demir, 2006).

Range: Endemic to Turkey. Apparently distributed only in Central Turkey.

***Apatophysis caspica* Semenov, 1901**

Current records from Turkey: There are two records from Turkey. Konya province: Tuz Lake and Akşehir (Demelt, 1967); Iğdır province: Reynhanlı and Kars province: S. E. slopes of Ararat (Villiers, 1967).

Range: Transcaspia (Winkler, 1924-1932); Turkmenia, the western coast of the Caspian sea to the south from Derbenta, Caucasus, Armenia, Northern Iran (Danilevsky & Miroshnikov, 1985); Jordan (Sama et al., 2002); Caucasus, Iran, Central Asia, Near East (Danilevsky, 2005).

Remarks: Although two records are known from Turkey, both records must be corrected. Primarily, the records in Villiers (1967) are from Iğdır province which is near Armenian and Iranian borders too. Because S. E. slopes of Ararat is in Iğdır province of Turkey in the present day, we think that these records are unsuspecting according to known distributional patterns in the world. Unfortunately the record in Demelt (1967) seems to be suspicious because of the known distributional patterns of this species in the world. So it probably belongs to the other species *Apatophysis anatolica* Heyrovsky, 1938 known only from Central Anatolia such as above. Moreover apparently even these two species may be synonyms. Without study the type materials, the recent record from Jordan in Sama et al. (2002) indicate possibility of this status. For this reason the real systematical and taxonomical status of these species need to be clarified.

ZOOGEOGRAPHICAL REMARKS

The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Vigna Taglianti et al. (1999).

Necydalis major major Linnaeus, 1758 has the Sibero-European chorotype. *Necydalis ulmi* Chevrolat, 1838 has the European chorotype. *Apatophysis caspica* Semenov, 1901 has the Turanian chorotype. *Necydalis sabatinelli* Sama, 1994 and *Apatophysis anatolica* Heyrovsky, 1938 are Anatolian endemic species only known with a few specimens.

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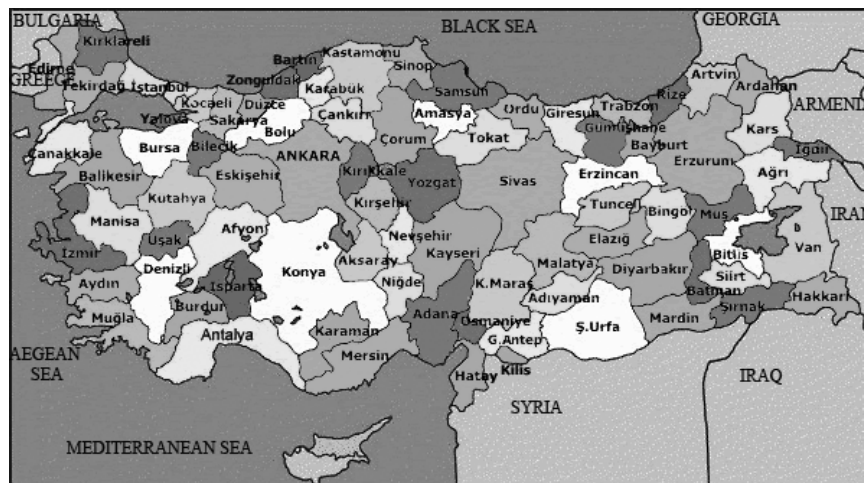


Fig. 1. The provinces of Turkey.