#### TURKISH RED LIST CATEGORIES OF LONGICORN BEETLES (COLEOPTERA: CERAMBYCIDAE) PART IV – SUBFAMILIES NECYDALINAE, ASEMINAE, SAPHANINAE, SPONDYLIDINAE AND APATOPHYSEINAE

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[Özdikmen, H. 2014. Turkish Red List Categories of Longicorn Beetles (Coleoptera: Cerambycidae) Part IV – Subfamilies Necydalinae, Aseminae, Saphaninae, Spondylidinae and Apatophyseinae. Munis Entomology & Zoology, 9 (1): 440-450]

ABSTRACT: The aim of this study is to create a Turkish Red List of the longicorn beetles. Moreover, presence such a Red List is necessary for Turkey. Even governmental evaluations could cause some erroneous decisions due to absence such a Red List. Since, governmental evaluations at the present time are based on the works that are realized with respect to the European Red List. Furthernore, Turkey appears a continental property changeable in very short distances in terms of climatical features and field structures. So, the status of European fauna and the status of Turkish fauna are not the same. Clearly, there is no any work that subjected to create a Turkish Red List except Part I-III. Hence, a series work is planned with this purpose. This type of study is the fourth attempt for Turkey.

KEY WORDS: Red List, Conservation, Cerambycidae, Turkey

The purpose of the current study was to create a Turkish Red List of longicorn beetles similarly to "European Red List of Saproxylic Beetles" that was compiled by Ana Nieto & Keith N. A. Alexander and published by IUCN (International Union for Conservation of Nature) in collaboration with the European Union in 2010. "European Red List of Saproxylic Beetles" includes 153 species within the subfamilies Prioninae, Cerambycinae and Lamiinae of the European Cerambycidae. So, it does not include any members of the subfamilies Necydalinae, Aseminae, Saphaninae, Spondylidinae and Apatophyseinae. In the future, I hope that the present work will be lead to preparation a more comprehensive "Turkish Red List".

Hence, a series work is planned with this purpose. The present study is attempted as the fourth step of this aim. The previous works are Özdikmen (2014a,b,c). It should be noted that the using information at the present work on Turkish longicorn beetles are on the base of my personal database. The data of distribution are given on base of Löbl & Smetana (2010, 2011), Danilevsky (2010a,b, 2012a,b,c,d, 2013), Özdikmen (2011) and Miroshnikov (2011). Identification of chorotypes is based on the chorotype classification of the Anatolian fauna, proposed by Vigna Taglianti et al. (1999).

The evaluations of Turkish longicorn beetles at the present work based on "The IUCN Red List Categories" that was presented in Part I (Özdikmen, 2014a).

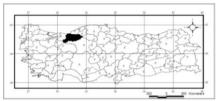
## TURKISH RED LIST FOR NECYDALINAE, ASEMINAE, SAPHANINAE, SPONDYLIDINAE AND APATOPHYSEINAE

SUBFAMILY NECYDALINAE Latreille, 1825: 401 TRIBE NECYDALINI Latreille, 1825: 401 GENUS NECYDALIS Linnaeus, 1758: 421 SUBGENUS NECYDALIS Linnaeus, 1758: 421

#### SPECIES N. sabatinelli Sama, 1994: 10

The endemic species is known only from "Bolu prov." in NW Anatolia. Apparently is distributed only in a local area. So, Turkish Red List category of the species is **EN**.

Range: Turkey Chorotype: Anatolian

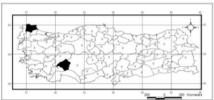


#### SPECIES N. ulmi Chevrolat, 1838: unnumb. [NP]

The species is known only from W half of Turkey. So, Turkish Red List category of the species is **DD**.

Range: Europe, Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Turkey, Iran.

Chorotype: European



#### SUBFAMILY ASEMINAE Thomson, 1861: 139

TRIBE ASEMINI Thomson, 1861

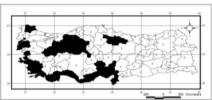
### GENUS ARHOPALUS Audinet-Serville, 1834: 77

SPECIES A. ferus (Mulsant, 1839: 64)

The species probably is widely distributed in both European Turkey and Anatolia for Turkey. So, Turkish Red List category of the species is **LC**.

Range: Europe, Siberia, Far East Russia, Kazakhstan, China, Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Turkey, Cyprus, Middle East (Syria, Israel, Jordan), North Africa (Algeria, Morocco, Madeira Archipelago, Tunisia), Australia (introduced).

Chorotype: Palaearctic + Australian

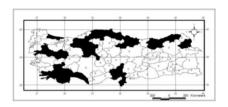


#### SPECIES A. rusticus (Linnaeus, 1758: 395) SUBSPECIES A. r. rusticus (Linnaeus, 1758: 395)

The species is represented only by the nominative subspecies in Turkey. It probably is widely distributed in both European Turkey and Anatolia for Turkey. So, Turkish Red List category of the species is **LC**.

Range: Europe, Siberia, Far East Russia, Japan, Kazakhstan, China, Korea, Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Turkey, North Africa (Morocco), Australia (introduced), Neotropical Region (introduced).

Chorotype: Palaearctic + Australian + Neotropical

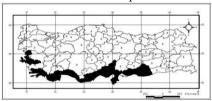


#### SPECIES A. syriacus (Reitter, 1895: 86)

The species probably is widely distributed in S Anatolia for Turkey. So, Turkish Red List category of the species is LC.

Range: S Europe, Turkey, Cyprus, Middle East (Syria, Lebanon, Israel, Jordan), North Africa (Algeria, Canary Islands, Morocco, Tunusia), Australia (introduced), Neotropical Region (introduced).

**Chorotype:** Mediterranean + Australian + Neotropical

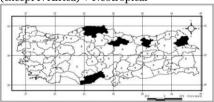


#### GENUS ASEMUM Eschscholtz, 1830: 66 SPECIES A. striatum (Linnaeus, 1758: 396)

The species probably is widely distributed in Anatolia for Turkey. So, Turkish Red List category of the species is LC.

Range: Europe, Siberia, Far East Russia, Japan, Kazakhstan, Kirgizia, Mongolia, Korea, China, Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Turkey, Neartctic and Neotropical Regions.

Chorotype: Holarctic (except N Africa) + Neotropical

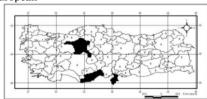


#### SPECIES A. tenuicorne Kraatz, 1879: 97

The very rare species with scattered distribution is known from Anatolia for Turkey only with a few records. So, Turkish Red List category of the species is **DD**.

Range: S and E Europe, Caucasus, Transcaucasia (Georgia), Turkey.

Chorotype: S and E European



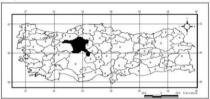
Moreover, the species is represented by two subspecies in Turkey as the nominative subspecies and *A. t. claricostulatum* Özdikmen & Aytar, 2012.

#### SUBSPECIES A. t. tenuicorne Kraatz, 1879: 97

The subspecies probably is distributed only in N Anatolia for Turkey. So, Turkish Red List category of the subspecies is **DD**.

Range: S and E Europe, Caucasus, Transcaucasia (Georgia), Turkey.

Chorotype: S and E European

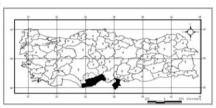


#### SUBSPECIES A. t. claricostulatum Özdikmen & Aytar, 2012: 1253

The endemic subspecies probably is distributed only in SC Anatolia for Turkey. So, Turkish Red List category of the subspecies is **EN**.

Range: Turkey.

Chorotype: Anatolian



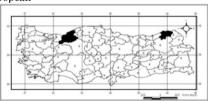
#### GENUS TETROPIUM Kirby, 1837: 174

#### SPECIES T. castaneum (Linnaeus, 1758: 396)

The species probably is distributed only in N Anatolia for Turkey. So, Turkish Red List category of the species is **NT**.

Range: Europe, Siberia, Far East Russia, Japan, Kazakhstan, Mongolia, Korea, China, Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Turkey.

Chorotype: Sibero-European

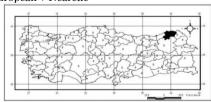


#### SPECIES T. fuscum (Fabricius, 1787: 154)

The species probably is distributed only in NE Anatolia for Turkey. So, Turkish Red List category of the species is  ${\bf VU}$ .

Range: Europe, Kazakhstan, China, Caucasus, Transcaucasia (Georgia), Turkey, Neartctic Region.

Chorotype: Asiatic-European + Nearctic

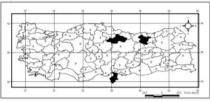


#### TRIBE NOTHORHININI Zagajkevich, 1991: 110 GENUS NOTHORHINA Redtenbacher, 1845: 109 SPECIES N. punctata (Fabricius, 1798: 149)

The species probably is distributed only in Anatolia for Turkey. So, Turkish Red List category of the species is **DD**.

Range: Europe, W Siberia, Kazakhstan, Japan, Caucasus, Turkey.

Chorotype: Sibero-European



#### SUBFAMILY SAPHANINAE Gistel, 1848: [1]

TRIBE ANISARTHRINI Mamaev & Danilevsky, 1973: 1260

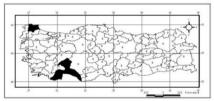
GENUS ALOCERUS Mulsant, 1862: 127

SPECIES A. moesiacus (Frivadszky, 1837: 177)

The species is distributed in both European Turkey and Anatolia for Turkey. However, Turkish Red List category of the species is **DD**.

Range: S Europe, Turkey, Iran, Cyprus, Middle East (Syria, Lebanon, Israel, Jordan, Iraq), North Africa (Algeria, Morocco, Tunusia).

Chorotype: Mediterranean

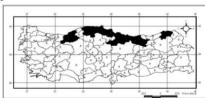


# TRIBE SAPHANINI Gistel, 1848: [1] GENUS DRYMOCHARES Mulsant, 1847: 518 SPECIES D. cavazzutii Sama & Rapuzzi, 1993: 288

The species is known only from N Anatolia for Turkey. So, Turkish Red List category of the species is **LC**.

Range: Transcaucasia (Armenia, Georgia), Turkey.

Chorotype: SW-Asiatic



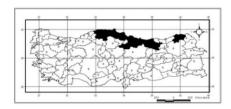
Moreover, the species is represented by two subspecies in Turkey as the nominative subspecies and  $D.\ c.\ ivani$  Sama & Rapuzzi, 1993.

#### SUBSPECIES D. c. cavazzutii Sama & Rapuzzi, 1993: 288

The subspecies probably is distributed only in N Anatolia for Turkey. So, Turkish Red List category of the subspecies is **LC**.

Range: Transcaucasia (Armenia, Georgia), Turkey.

Chorotype: SW-Asiatic

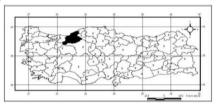


#### SUBSPECIES D. c. ivani Sama & Rapuzzi, 1993: 287

The endemic subspecies probably is distributed only in NW Anatolia for Turkey. So, Turkish Red List category of the subspecies is **VU**.

Range: Turkey.

Chorotype: Anatolian

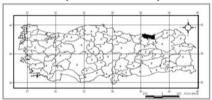


#### GENUS SAPHANUS Audinet-Serville, 1834: 81 SPECIES S. piceus (Laicharting, 1784: 56) SUBSPECIES S. p. ganglbaueri Brancsik, 1886: 71

The species is represented only by the subspecies *S. piceus ganglbaueri* in Turkey. It is known from both European Turkey and N Anatolia for Turkey. However, Turkish Red List category of the species is **DD**.

Range: SE Europe, Turkey.

Chorotype: Turano-Mediterranean (Balkano-Anatolian)

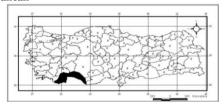


#### GENUS OXYPLEURUS Mulsant, 1839: 57 SPECIES O. nodieri Mulsant, 1839: 57

The species is known only from S Anatolia for Turkey. So, Turkish Red List category of the species is **DD**.

Range: S Europe, Transcaucasia (Georgia), Turkey, North Africa (Algeria, Canary Islands, Morocco, Madeira Archipelago, Tunusia).

Chorotype: Mediterranean



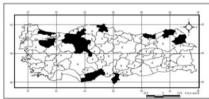
#### SUBFAMILY SPONDYLIDINAE Audinet-Serville, 1832: 123 TRIBE SPONDYLIDINI Audinet-Serville, 1832: 123 GENUS SPONDYLIS Fabricius, 1775: 159

SPECIES S. buprestoides (Linnaeus, 1758: 388)

The species probably is widely distributed in Turkey. So, Turkish Red List category of the species is LC.

Range: Europe, Siberia, Far East Russia, Japan, Kazakhstan, Mongolia, Korea, China, Taiwan, Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Turkey, North Africa (Morocco).

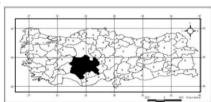
Chorotype: Palaearctic



#### SUBFAMILY APATOPHYSEINAE Lacordaire, 1869: 234 TRIBE APATOPHYSEINI Lacordaire, 1869: 234 GENUS APATOPHYSIS Chevrolat, 1860: 95 SUBGENUS APATOPHYSIS Chevrolat, 1860: 95 SPECIES A. anatolica Heyrovsky, 1938: 93

The endemic species is distributed only in CS Anatolia. So, Turkish Red List category of the species is **EN**.

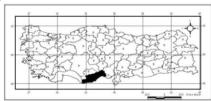
Range: Turkey. Chorotype: Anatolian



#### SPECIES A. kadleci Danilevsky, 2008: 29

The endemic species is distributed only in SC Anatolia. So, Turkish Red List category of the species is **EN**.

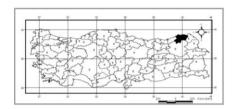
Range: Turkey. Chorotype: Anatolian



#### SPECIES A. karsica Danilevsky, 2008: 28

The endemic species is distributed only in NE Anatolia. So, Turkish Red List category of the species is EN.

Range: Turkey. Chorotype: Anatolian

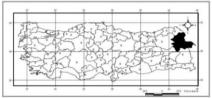


#### SPECIES A. vedica Danilevsky, 2008: 26

The species is distributed only in NE Anatolia for Turkey. So, Turkish Red List category of the species is **EN**.

Range: Trancaucasia (Armenia), Turkey.

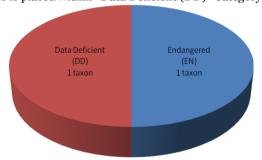
Chorotype: SW-Asiatic



#### **CONCLUSION:**

With the present work, "Turkish Red List Categories" for 21 Turkish species group taxa determined (Appendix 1).

**For Turkish Necydalinae:** The subfamily includes only 2 species in Turkey. Only 1 species is placed within "Endangered (EN)" Category. Only 1 species is placed within "Data Deficient (DD)" Category.



**For Turkish Aseminae:** The subfamily includes 9 species group taxa (6 species + 3 subspecies) in Turkey. Among them;

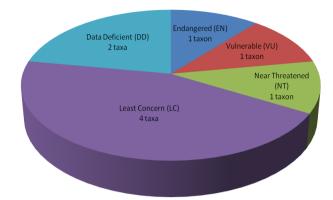
Only 1 subspecies is placed within "Endangered (EN)" Category.

Only 1 species is placed within "Vulnerable (VU)" Category.

Only 1 species are placed within "Near Threatened (NT)" Category.

3 species and 1 subspecies are placed within "Least Concern (LC)" Category.

1 species and 1 subspecies are placed within "Data Deficient (DD)" Category.

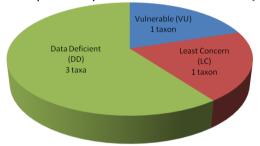


**For Turkish Saphaninae:** The subfamily includes 5 species group taxa (2 species + 3 subspecies) in Turkey. Among them;

Only 1 subspecies is placed within "Vulnerable (VU)" Category.

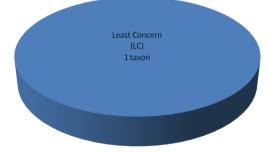
Only 1 subspecies are placed within "Least Concern (LC)" Category.

2 species and 1 subspecies are placed within "Data Deficient (DD)" Category.



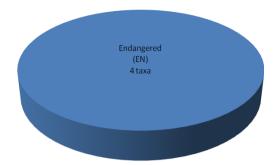
For Turkish Spondylidinae: The subfamily includes only 1 species in Turkey.

The species is placed within "Least Concern (LC)" Category.



For Turkish Apatophyseinae: The subfamily includes 4 species in Turkey. All of them;

4 species is placed within "Endangered (EN)" Category.



Consequently, "European Red List Saproxylic Beetles" does not include any members of the subfamilies Necydalinae, Aseminae, Saphaninae, Spondylidinae and Apatophyseinae. So, any comparison with "Turkish Red List" is impossible.

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**Appendix 1.** Red List Categories of Turkish longicorn beetles belonging to Necydalinae, Aseminae, Saphaninae, Spondylidinae and Apatophyseinae.

TAXA	TURKISH RED LIST CATEGORY	EUROPEAN RED LIST CATEGORY	ENDEMISM FOR TURKEY
NECYDALINAE			
Necydalis sabatinelli	EN		YES
Necydalis ulmi	DD		
ASEMINAE			
Arhopalus ferus	LC		
Arhopalus rusticus rusticus	LC		
Arhopalus syriacus	LC		
Asemum striatum	LC		
Asemum tenuicorne	DD		
A. tenuicorne tenuicorne	DD		
A. tenuicorne claricostulatum	EN		YES
Tetropium castaneum	NT		
Tetropium fuscum	VU		
Nothorhina punctata	DD		
SAPHANINAE			
Alocerus moesiacus	DD		
Drymochares cavazzutii	LC		
D. cavazzutii cavazzutii	LC		
D. cavazzutii ivani	VU		YES
Saphanus piceus ganglbaueri	DD		
Oxypleurus nodieri	DD		
SPONDYLIDINAE			
Spondylis buprestoides	LC		
APATOPHYSEINAE			
Apatophysis anatolica	EN		YES
Apatophysis kadleci	EN		YES
Apatophysis karsica	EN		YES
Apatophysis vedica	EN		