TURKISH RED LIST CATEGORIES OF LONGICORN BEETLES (COLEOPTERA: CERAMBYCIDAE) PART I – SUBFAMILIES VESPERINAE AND PRIONINAE

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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. Hence, a series work is planned with this purpose. This type of study is the first attempt for Turkey.

KEY WORDS: Red List, Conservation, Cerambycidae, Turkey

The conservation of beetles has received a great deal of attention in many parts of the world in recent years. Human activities like growing cities, wood harvesting and global warming that destroy natural ecosystem threaten unique species day by day. So currently, a great deal of researches is aimed at conserving these organisms. Moreover, numerous researchers in Europe have arranged meetings to conserve the habitats upon which these species depend. Although represented by a large number of species in Turkey have not received much attention (Avgin et al., 2013).

So, 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. 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 first step of this aim. 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 is presented as follows:

EXTINCT (EX)

A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at

appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycles and life form.

EXTINCT IN THE WILD (EW)
A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

CRITICALLY ENDANGERED (CR)
A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild.

ENDANGERED (EN)
A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a very high risk of extinction in the wild.

VULNERABLE (VU)
A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable, and it is therefore considered to be facing a high risk of extinction in the wild.

NEAR THREATENED (NT)
A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

LEAST CONCERN (LC)
A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.

DATA DEFICIENT (DD)
A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, if a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.

NOT EVALUATED (NE)
A taxon is Not Evaluated when it is has not yet been evaluated against the criteria.

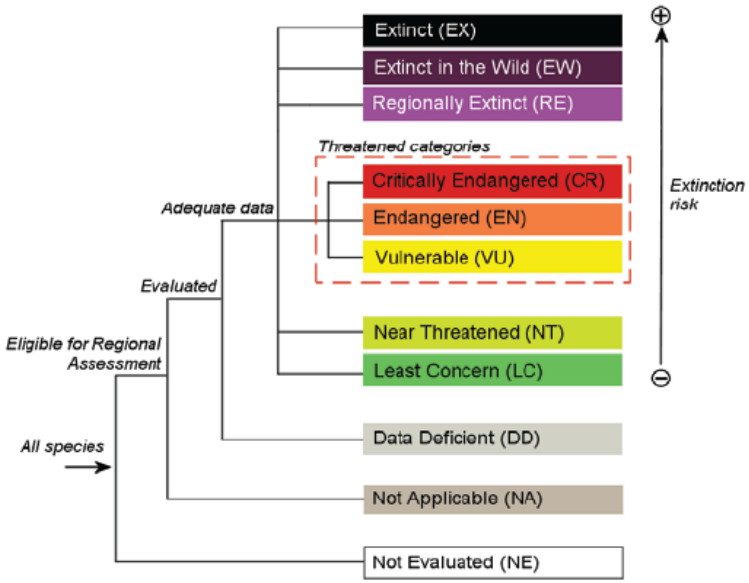


Figure 1. IUCN Red List Categories at regional scale.

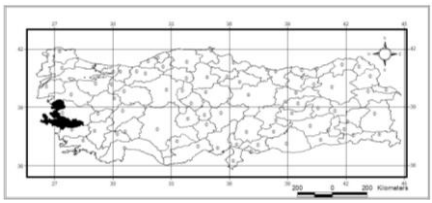
TURKISH RED LIST FOR VESPERINAE AND PRIONINAE

SUBFAMILY VESPERINAE Mulsant, 1839
TRIBE VESPERINI Mulsant, 1839
GENUS *VESPERUS* Dejean, 1821: 111
SPECIES *V. ocularis* Mulsant & Rey, 1863: 172

European Red List of Saproxylic Beetles does not include the endemic species rightly. It is known only from the type locality "Smyrne = İzmir prov." in W Anatolia. It has not been recorded by any author from Turkey since 1863. So, Turkish Red List category of the species is **NE**.

Range: Turkey

Chorotype: Anatolian

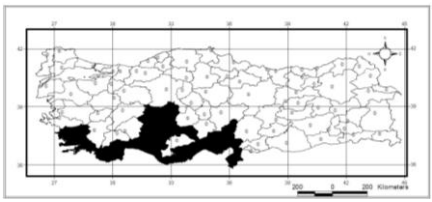


SUBFAMILY PRIONINAE Latreille, 1802: 212
TRIBE ERGATINI Fairmaire, 1864: 117
GENUS *CALLERGATES* Lameere, 1904: 47
SPECIES *C. gaillardoti* (Chevrolat, 1854: 481)

According to European Red List of Saproxylic Beetles, the species was placed in a "Threatened Category" as **EN**. It is distributed only in SC and SW Anatolia (Muğla to Hatay) for Turkey. So, Turkish Red List category of the species is **NT**.

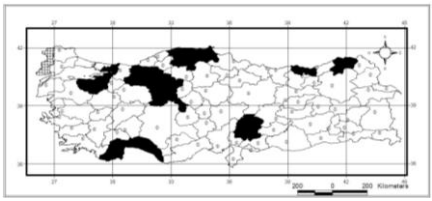
Range: Europe (Rhodes and Samos islands), Turkey, Syria, Cyprus, Lebanon, North Africa (introduced Egypt).

Chorotype: E-Mediterranean



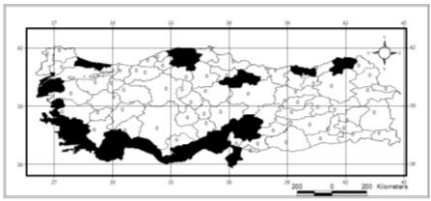
GENUS *ERGATES* Audinet-Serville, 1832: 143
SPECIES *E. faber* (Linnaeus, 1760: 187)
SUBSPECIES *E. faber faber* (Linnaeus, 1760: 187)

According to European Red List of Saproxylic Beetles, the species was placed in **LC**. It is represented only by the nominative subspecies in Turkey. It probably widely distributed in Turkey. So, Turkish Red List category of the species is also **LC**.
Range: Europe, North Africa (Morocco), Turkey, Syria, Iraq.
Chorotype: W-Palaearctic



TRIBE MACROTOMINI Thomson, 1861: 312
GENUS *PRINOBIUS* Mulsant, 1842: 207
SPECIES *P. myardi* Mulsant, 1842: 207

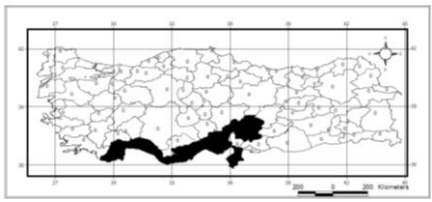
According to European Red List of Saproxylic Beetles, the species was placed in **LC**. It probably is widely distributed in Turkey. So, Turkish Red List category of the species is also **LC**.
Range: S Europe, North Africa (Algeria, Egypt, Libya, Morocco, Tunisia), Turkey, Transcaucasia (Georgia), Iran, Middle East (Cyprus, Syria, Jordan, Israel, Lebanon).
Chorotype: Mediterranean



Moreover, the species is represented by two subspecies in Turkey as *P. m. atropos* Chevrolat, 1854 and *P. m. slamorum* Danilevsky, 2012. However, European Red List of Saproxylic Beetles does not include the subspecies of *P. myardi* Mulsant, 1842.

SUBSPECIES *P. m. atropos* Chevrolat, 1854: 482

The subspecies is distributed only in SC Anatolia (Antalya to Hatay) for Turkey. So, Turkish Red List category of the subspecies is **NT**.
Range: Turkey, Middle East (Cyprus, Syria, Jordan, Israel, Lebanon).
Chorotype: E-Mediterranean (Palestino-Cyprioto-Taurian)

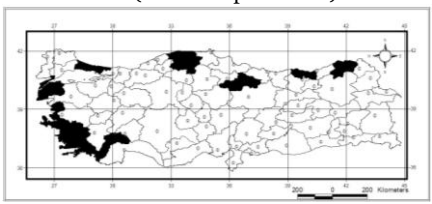


SUBSPECIES *P. m. slamorum* Danilevsky, 2012: 698

The subspecies probably is widely distributed in N and W Turkey. So, Turkish Red List category of the subspecies is **LC**.

Range: SE Europe, Turkey, Transcaucasia (Georgia), Iran.

Chorotype: Turano-Mediterranean (Turano-Apenninian)



TRIBE REMPHANINI Lacordaire, 1868: 103

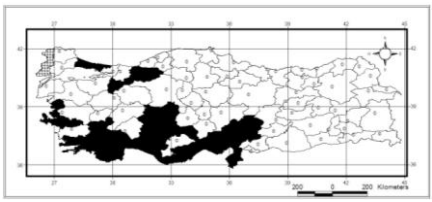
GENUS *RHAESUS* Motschulsky, 1875: 153 [RN]

SPECIES *R. serricollis* (Motschulsky, 1838: 187)

According to European Red List of Saproxylic Beetles, the species was placed in **NT**. It probably is widely distributed in Turkey. So, Turkish Red List category of the species is **LC**.

Range: SE Europe, Turkey, Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Iran, Syria, Cyprus, Israel, Lebanon, North Africa (introduced Egypt).

Chorotype: E-Mediterranean



TRIBE AEGOSOMATINI Thomson, 1861: 308

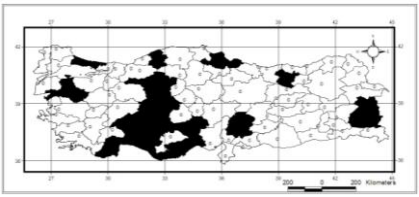
GENUS *AEGOSOMA* Audinet-Serville, 1832: 162

SPECIES *A. scabricorne* (Scopoli, 1763: 54)

According to European Red List of Saproxylic Beetles, the species was placed in **LC**. It probably is widely distributed in Turkey. So, Turkish Red List category of the species is **LC**.

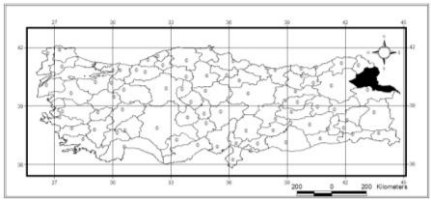
Range: Europe, Turkey, Caucasus, Transcaucasia (Armenia, Azerbaijan), Iran, Syria, Lebanon.

Chorotype: Turano-European



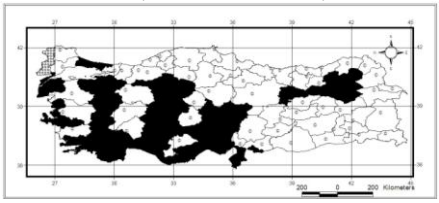
TRIBE PRIONINI Latreille, 1802: 212
GENUS *MESOPRIONUS* Jakovlev, 1887: 323
SPECIES *M. asiaticus* (Faldermann, 1837: 263)

According to European Red List of Saproxylic Beetles, the species was placed in **DD**. It is distributed only in NE Anatolia for Turkey. So, Turkish Red List category of the species is **EN**.
Range: Caucasus, Transcaucasia (Armenia, Azerbaijan, Georgia), Turkey, Iran, Kazakhstan.
Chorotype: SW-Asiatic



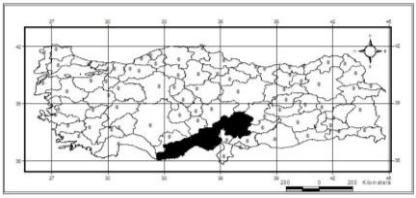
SPECIES *M. besikanus* (Fairmaire, 1855: 318)

According to European Red List of Saproxylic Beetles, the species was placed in **DD**. It probably is widely distributed in Turkey. So, Turkish Red List category of the species is **LC**.
Range: SE Europe, Turkey, Cyprus.
Chorotype: Turano-Mediterranean (Balkano-Anatolian)



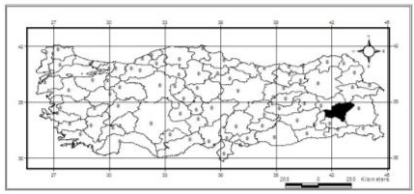
SPECIES *M. lefebvrei* (Marseul, 1856: 47)

European Red List of Saproxylic Beetles does not include the species rightly. It is known only from SC Anatolia for Turkey. So, Turkish Red List category of the species is **NT**.
Range: Turkey, Middle East (Syria, Jordan, Israel, Lebanon), North Africa (Egypt).
Chorotype: E-Mediterranean



SPECIES *M. persicus* (Redtenbacher, 1850: 49)

European Red List of Saproxylic Beetles does not include the species rightly. It is also known from Turkey to the reference, Löbl & Smetana (2010) without any exact locality in Turkey. It probably is distributed only in E Anatolia for Turkey. So, Turkish Red List category of the species is **DD**.
Range: Turkey, Iran, Iraq.
Chorotype: SW-Asiatic



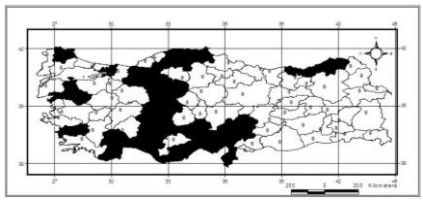
GENUS *PRIONUS* Geoffroy, 1762: 198

SPECIES *P. coriarius* (Linnaeus, 1758: 389)

According to European Red List of Saproxylic Beetles, the species was placed in **LC**. It is widely distributed in Turkey. So, Turkish Red List category of the species is **LC**.

Range: urkey

Chorotype: Anatolian

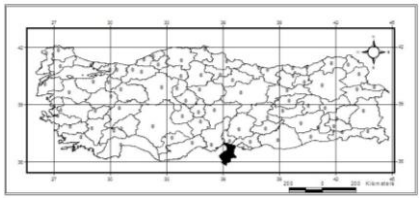


SPECIES *P. komiyai* Lorenc, 1999: 13

European Red List of Saproxylic Beetles does not include the species rightly. It is known only from SC Anatolia for Turkey. So, Turkish Red List category of the species is **VU**.

Range: Turkey, Syria, Lebanon.

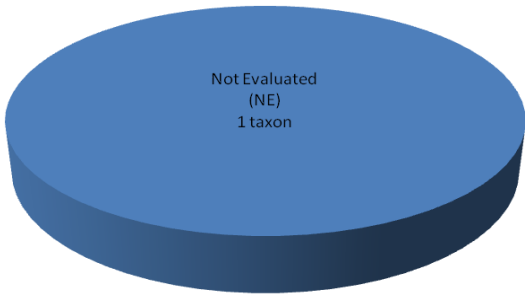
Chorotype: E-Mediterranean (Palestino-Taurian)



CONCLUSION:

With the present work, "Turkish Red List Categories" for 13 Turkish species group taxa determined (Appendix 1).

For Turkish Vesperinae: The subfamily includes only 1 species in Turkey. The species is placed within "Not Evaluated (NE)" Category.



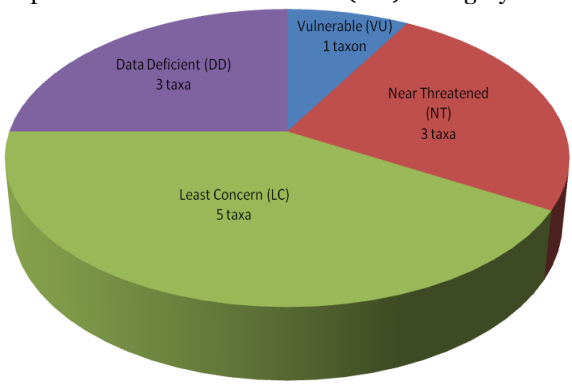
For Turkish Prioninae: The subfamily includes 12 species group taxa (9 species + 3 subspecies) in Turkey. Among them;

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

2 species and 1 subspecies are placed within “Near Threatened (NT)” Category.

3 species and 2 subspecies are placed within “Least Concern (LC)” Category.

3 species are placed within “Data Deficient (DD)” Category.



Consequently, only a total of 8 species of Prioninae were evaluated in “European Red List Saproxylic Beetles”. Among them, the Red List Categories of 4 species were changed in “Turkish Red List”.

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Appendix 1. Red List Categories of Turkish longicorn beetles belonging to Vesperinae and Prioninae.

TAXA	TURKISH RED LIST CATEGORY	EUROPEAN RED LIST CATEGORY	ENDEMISM FOR TURKEY
VESPERINAE			
Vesperus ocularis	**NE**	**---**	**YES**
PRIONINAE			
Callergates gaillardoti	**NT**	**EN**	**---**
Ergates faber faber	**LC**	**LC**	**---**
Prinobius myardi	**LC**	**LC**	**---**
P. myardi atropos	**NT**	**---**	**---**
P. myardi slamorum	**LC**	**---**	**---**
Rhaesus serricollis	**LC**	**NT**	**---**
Aegosoma scabricorne	**LC**	**LC**	**---**
Mesoprionus asiaticus	**DD**	**EN**	**---**
Mesoprionus besikanus	**DD**	**LC**	**---**
Mesoprionus lefebvrei	**NT**	**---**	**---**
Mesoprionus persicus	**DD**	**---**	**---**
Prionus coriarius	**LC**	**LC**	**---**
Prionus komiyai	**VU**	**---**	**---**