

**DORCADION (MACULATODORCADION) TRISTE
FRIVALDSZKY, 1845 (COLEOPTERA: CERAMBYCIDAE:
LAMIINAE): NEW FOR THE EUROPEAN FAUNA, WITH
DESCRIPTION OF A NEW SUBSPECIES FROM GREECE**

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ABSTRACT: In this work, a new subspecies, *Dorcadion (Maculatodorcadion) triste lesvicum* ssp. nov., is described from Lesvos island of Greece. Accordingly, the presence of *Dorcadion (Maculatodorcadion) triste* Frivaldszky, 1845 in Europe is documented for the first time. A pair was collected in April and May 2019, on Lesvos island of Greece. Information on the habitat it was found is given. Its distribution on the island is discussed.

KEY WORDS: *Dorcadion (Maculatodorcadion) triste*, new subspecies, first records, Cerambycidae, Lesvos

Species in the genus *Dorcadion* Dalman, 1817 are all wingless and inhabit grasslands, mainly at high altitudes, where they are local. Their larvae feed on the roots of grasses. Adult phenology is mainly in spring, and early summer. The systematics of the genus is very complicated, and quite many taxa are considered as not valid species by some authors. In Greece, the genus is well represented by about 75 species - an additional of 5 species in the genus *Neodorcadion* Ganglbauer, 1884 also occur in Greece - a large percentage of which are endemic.

From Lesvos island are known the species *Dorcadion (Cribridorcadion) divisum* Germar, 1839, *D. (C.) funestum* Ganglbauer, 1884 (a species in the *D. divisum* group, for the validity of which there is debate among authors), *D. (C.) pilosellum* Kraatz, 1873, *D. (C.) pilosipenne* Breuning, 1943, and *D. (Maculatodorcadion) quadrimaculatum* ssp. *nodicorne* Tournier, 1872. The last species is the only one from the subgenus *Maculatodorcadion* Breuning, 1943 known from Greece and generally from Europe. This subgenus contains three more species: *D. (M.) janssensi* Breuning, 1966, *D. (M.) triste* Frivaldszky, 1845, and *D. (M.) wolfi* Krätschmer, 1985, all known only from Turkey (Löbl & Smetana 2010, Özdikmen 2016).

MATERIAL AND METHODS – RESULTS

In April 2018, a picture of a male *Dorcadion* was posted in social media from local people of Lesvos, who asked for identification to species level, stating that it was found in the area of Pappados, a village in SE. Lesvos. Some entomologists suggested *D. divisum* and *D. funestum*, but then the first author of this paper identified it publicly as *D. (M.) triste*, a species known as endemic to W. Turkey (Özdikmen 2010, 2016), as the picture was quite clear and the characters visible.

Specifically, that pictured male had the characteristic of the subgenus *Maculatodorcadion* enlarged spines on the edges of the hind tibiae (especially in males) (Fig. 1b) and thickened apical parts of the first five antennomeres (Fig. 1e), and the distinctive black and whitish elytral pattern with black spots (Fig. 1a), which agree with the original description of *triste* by Frivaldszky (1845).

Then, next year, in late April and early May 2019, the second author collected specimens (Figs 1, 2) on the island and sent them to the first author, who examined and identified them as male (Fig. 1a-b) and female (Figs 1c-e, 2) of *D. (M.) triste*, due to the characters mentioned above. It is interesting that our female is androchromal. The females we know from Turkey are autochromal, of grey form. Specifically, both specimens were collected in Pirgi Thermis, a village in E. Lesvos. The male was found on May 2, 2019, at around 3:00 p.m., and the female on April 27, 2019, at around 2:00 p.m. Accordingly we accepted the specimens belong to a new subspecies of *Dorcadion (M.) triste* Frivaldszky, 1845. The new subspecies is named as *Dorcadion (M.) triste lesvicum* ssp. nov. after the type locality Lesvos island with androchromal female mainly. Thus the holotype of new subspecies is the female specimen.

***Dorcadion (M.) triste lesvicum* ssp. nov.**

Types: Holotype (♀), Greece: E. Lesvos, Pirgi Thermis, April 27, 2019. Paratype (♂), Greece: E. Lesvos, Pirgi Thermis, May 2, 2019.

The new subspecies is diagnosed by following characters: The male of new subspecies is generally similar to the nominative form of *Dorcadion (Maculatodorcadion) triste* Frivaldszky, 1845, but the female is unusually androchromal. The females of nominotypical subspecies we know from Turkey are autochromal, of grey form. Besides humeral edges of elytra and lateral projections of pronotum in nominotypical subspecies are more protruded and more pointed respectively while they are less protruded and less pointed in both male and female of new subspecies. Body length in male: 18.5 mm, width: 5.8 mm; body length in female: 17.8 mm, width: 6.7 mm.

The habitat they were found (Fig. 3) is a zone next to the sea, especially rich in Poaceae (their hostplant) – a typical grassland biotope of *Dorcadion*. Specifically, these plant species are dominant in the area: *Anacamptis laxiflora*, *Arundo donax*, *Avena* sp., *Briza maxima*, *Bromus* sp., *Dasypyrum* sp., *Daucus carota*, *Ferula communis*, *Glebionis coronaria*, *G. segetum*, *Linum bienne*, *Lotus* sp., *Plantago lanceolata*, *Rubus sanctus*, *Serapias bergonii*, *Silene gallica*, *Spartium* sp., *Tamarix gallica*, *Trifolium* sp. and *Ulmus glabra*. There are shale rocks in the area.

As already mentioned, this species is until now known only from Turkey with records from Balıkesir, Bursa and İzmir provinces (Fig. 4). There it has two known subspecies, *D. t. triste* Frivaldszky, 1845 and *D. triste phrygicum* Peks, 1993 (Löbl & Smetana 2010). According to Özdikmen & Kaya (2015) and Özdikmen (2016), *phrygicum* should be treated as separate species. The specimens in the present paper, collected on E. Lesvos island, are the first documented records of *D. triste* from Greece and generally from Europe.

DISCUSSION

Both Pirgi Thermis, the area where we collected the specimens of *D. triste*, and Pappados, the place where local people of Lesvos claimed to have found a

photographed male identified as *triste* by us, are located on the eastern part of the island. The species hasn't been found in other parts of Lesvos. It is not impossible to be more widespread on the island, however it seems that it has formed local populations on the eastern part only, close to W. Turkish coasts, given also the limited dispersal ability of the flightless beetles. Trade is known in Lesvos as early as 3000 B.C. Specifically, at the area of the village Pirgi Thermi where we found the species, there was the prehistoric settlement of Thermi, which had developed trading relationships with NW. Turkey – where *D. triste* is known to exist (Özdikmen & Kaya 2015, Özdikmen 2016) – up to about 2500 B.C. when it was destroyed. It is very possible that the species has been transferred in the area from Turkey since that period with trading ships, found favorable grassland habitat and formed local populations there. The time passed since that period could be enough for their subspeciation. Here we must mention that, trading relationships with Asia Minor had developed also other places of especially the eastern part of Lesvos, such as Mytilini or Plomari, and the activity stayed alive until the destruction of 1922. We think therefore that *D. triste* is possibly more widespread in E. Lesvos, but the degree of genetic differentiation could be different between potential local populations, and they can belong to different subspecies, as they may have been formed at different times, and in some cases the possible arrival of conspecifics from Turkey via marine transport could dilute the differentiating genes of a population. Nevertheless, more research is needed in order to obtain more knowledge on the actual distribution of *D. triste* on the island (and maybe also on more E. Aegean Greek islands), and to be clarified the exact taxonomic status of each potential population of this species. Finally, we think that more species of the Turkish insect fauna will be discovered also on E. Aegean Greek islands.

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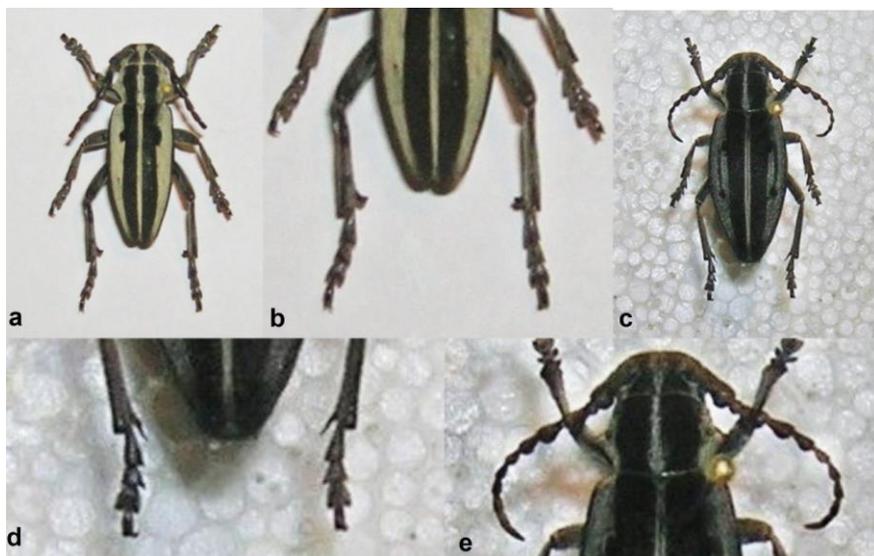


Figure 1. *Dorcadion (Maculatodorcadion) triste lesvicum* ssp. nov. from Lesvos island, a. ♂, b. male hind tibiae with enlarged spines, c. ♀, d. female hind tibiae with spines, e. female antennae, showing the thickened apical parts of the first five antennomeres.

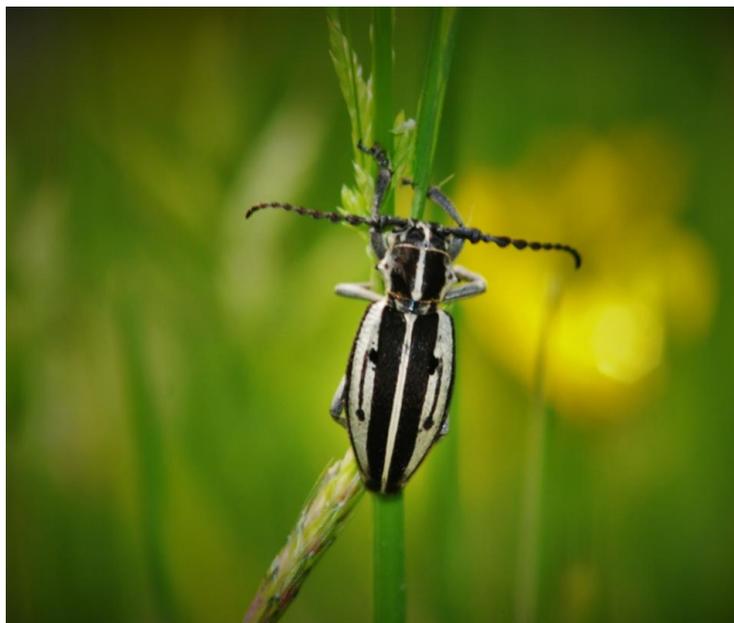


Figure 2. *D. (M.) triste lesvicum* ssp. nov. (♀), Pirgi Thermis, E. Lesvos, April 27, 2019.



Figure 3. The habitat of *D. (M.) triste lesvicum* ssp. nov. in Pirgi Thermis, E. Lesvos.

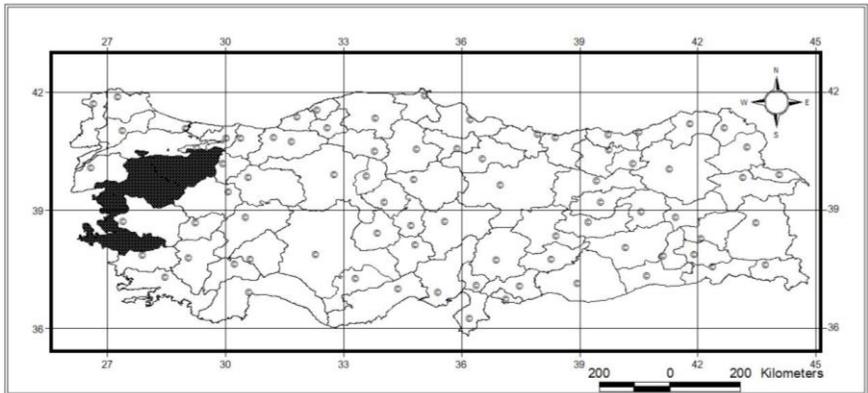


Figure 4. The distribution patterns of *D. (M.) triste triste* in Turkey.