



## *Microlestes maurus cordatulus* (Reitter, 1901) (Insecta: Coleoptera: Carabidae) enters Bulgarian fauna

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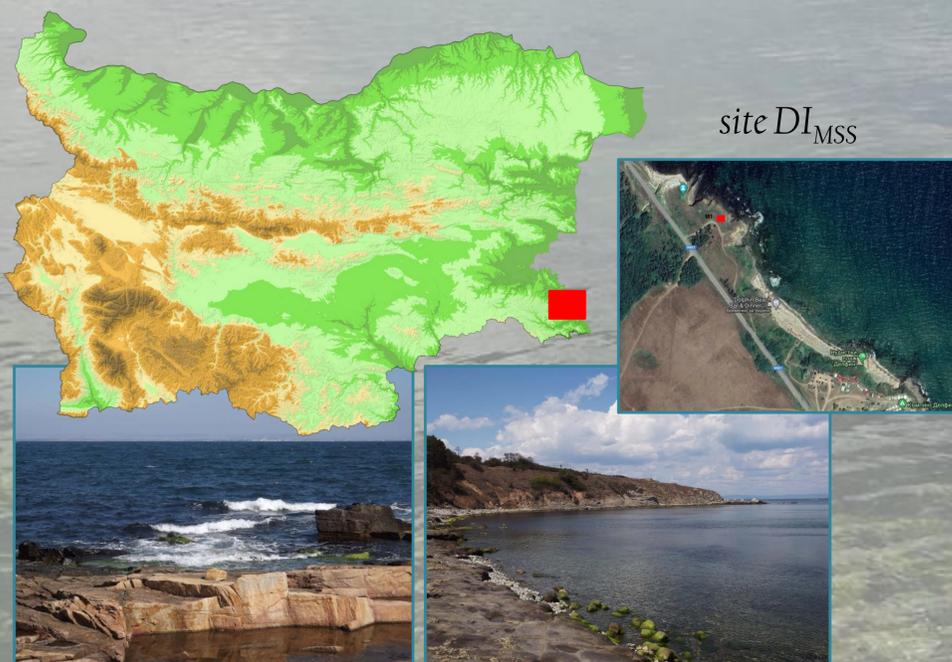


### INTRODUCTION & AIM

Bulgaria is one of the smaller European countries, but it keeps great biological richness and diversity. It is generally believed that many thermophilic and drought-loving Mediterranean animals live in the southern regions of the country and on the Black Sea coast. This study is a part of a project researching faunal complexes along three large river valleys and the Black Sea coast, where Mediterranean influence can be detected, and which serve as main roads for the entry of thermophilic biota. The aim of this zoocoenoses monitoring is to detect any changes in the composition of Bulgarian fauna.

### METHOD

In 2022, we started to study the selected regions monthly – from their southernmost point on the Bulgarian territory to the north, where the Mediterranean influence is confirmed. We set 120 pitfall traps and 10 MMS-traps along four “corridors”. Some material is also collected by hand.



*M. m. cordatulus*  
from site DI<sub>MSS</sub>



*M. m. maurus*



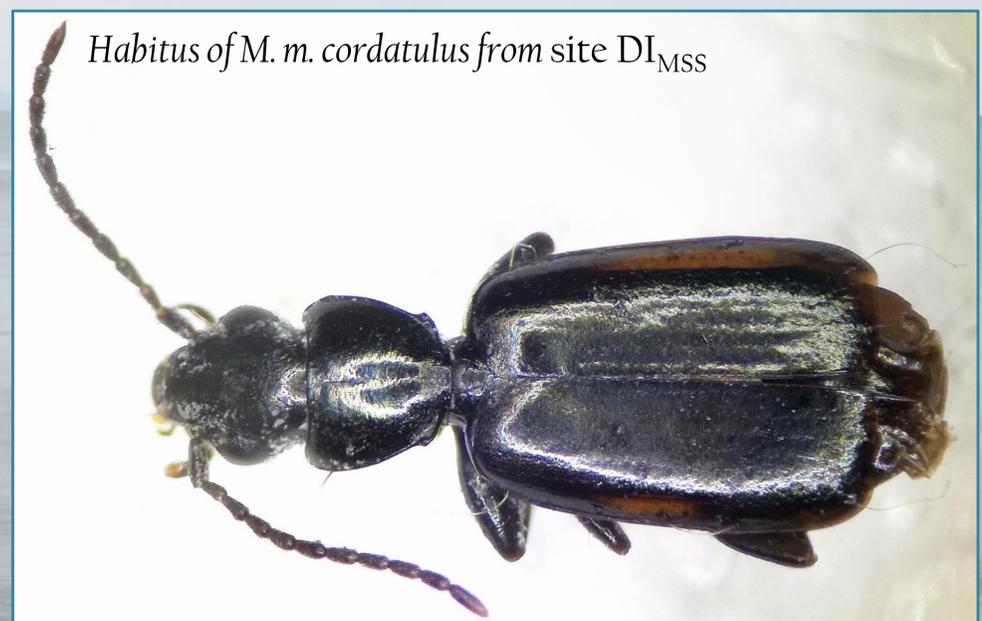
*M. m. cordatulus*

Shape of the aedeagus

### RESULTS & DISCUSSION

⚠ The first indication so far is the registration of the ground beetle *Microlestes maurus cordatulus* (Reitter, 1901) (Coleoptera: Carabidae).

In April 2023, one male specimen of this subspecies was collected in a MSS trap, situated in less than 20 km from the southernmost point of the Bulgarian coast (site DI<sub>MSS</sub> of the Project): N of Ahtopol, 42°06'33"N, 27°55'02"E, 9 m a.s.l.



Habitus of *M. m. cordatulus* from site DI<sub>MSS</sub>

*Microlestes maurus* Sturm, 1827 is a small (2.2 to 2.8 mm) black ground beetle with short, truncate elytra and bulging eyes with short temples. The main identification characteristics are its genitals, as its penis is sclerotized and has distinct apex with a hook-shaped denticle. In Bulgaria, the species is widespread in the plains and foothills. It is distributed in Europe (except the north), Caucasus and Anterior Asia.

According to the last edition of the Catalogue of the Palearctic Coleoptera, the subspecies *M. m. cordatulus* is known only from Greece, Iran, Lebanon and Syria. The two subspecies of *M. maurus* clearly differ by the shape of the aedeagus, with that of the *M. m. cordatulus* having more elongated apex with significantly less salient hook, such as in the Bulgarian specimen.

### CONCLUSION

The finding of this thermophilous element is just one of the signals for the faunal shifts. The new location suggests that *M. m. cordatulus* most certainly occurs at the Turkish Black Sea coast, too.

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