## **Book of Abstract**



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## SESSION IV

## FAUNISTICS, BIOGEOGRAPHY AND INSULARITY

## The genus *Chelidura* Latreille, 1825 in the Alps, between complexity and climatic risk (Dermaptera, Forficulidae, Anechurinae).

Paolo Fontana<sup>1</sup>, Valeria Malagnini<sup>2</sup>, Enrico Ruzzier<sup>2</sup>, Federico Pedrazzoli<sup>1</sup>, Petr Kočárek<sup>3</sup>

<sup>1</sup> Edmund Mach Foundation, Italy; <sup>2</sup> University of Roma Tre, Italy; <sup>3</sup> University of Ostrava, Czech Republic

Up to recent years, the genus Chelidura Latreille, 1825, has been treated, as far as Western Europe is considered, in a very confused and contradictory way. The composition of the genus itself, which according to many authors also includes the species now assigned to the genera Chelidurella Verhoeff, 1902, and Mesochelidura Verhoeff, 1902, has only recently been defined thanks to the revision, mainly on a molecular basis, of the genus Chelidurella. Regarding the species attributed to the genus Chelidura of western Europe, the Italian entomologists who had dealt with them (Felice Capra and Augusto Vigna Taglianti above all) had a fairly clear picture, assigning the populations of the Alps (France, Italy and Switzerland ) to Chelidura aptera (Megerle in Charpentier, 1825), those of the Pyrenees (France and Spain) to Chelidura pyrenaica (Bonelli in Gené, 1832), and those of the Massif Central (France) to C. pyrenaica arverna David & Van Herrewege, 1973. Nevertheless, the European bibliography has very often confused these species and above all their distribution. The main problem for a systematic study on the genus Chelidura is represented by the fact that the type species of the genus, C. aptera, had a rather vague Locus typicus, namely Europe, and that no type material is preserved. The recent designation of a Neotypus for C. aptera and molecular-based analyses have finally allowed to conduct a more detailed study of this genus in Western Europe, demonstrating that it is composed of a single species in the Pyrenees (C. pyrenaica) and another, independent one on the Massif Central (C. arverna), confirming the previous approach of the Italian authors. Regarding the Alpine populations, these studies highlighted a much more complex composition. Some populations are therefore in an advanced stage of description as new species or will be re-evaluated, based on both molecular and morphometric analyses. The application of morphometric analyses, besides a more reliable interpretation of molecular data, is needed because the extraction of DNA from collection specimens is not always possible and the collection of new specimens from populations known from the literature or from collection material is difficult. Recent, intense, and repeated research carried out in well-known localities has in fact given negative results, suggesting an effect of recent climatic changes which could have considerably modified the high-altitude habitats to which the alpine species of the genus Chelidura have always been associated.

**KEY WORDS:** Dermaptera, Alps, taxonomy, climate change.

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