

First Results Of DNA Barcoding Of Plecoptera (Insecta) And Pseudoscorpiones (Arachnida) In Croatia

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Project CroBarFauna includes identification of species and discovering new ones (especially endemic, cryptic and endanger species). This project will help in understanding of geographic distribution of fauna and it is also a good source of knowledge for taxonomy, phylogenetics and phylogeography.

DNA barcoding of Plecoptera and Pseudoscorpiones with 3 samples per species from 100 different locations are part of PhD thesis of first author.

80 species of Plecoptera have been recorded in Croatia. Plecoptera are the most endangered species in Croatia due to human activity. 130 samples of Plecoptera DNA barcoded so far revealed several deeply divergent genetic lineages that potentially represent new species.²

118 species of Pseudoscorpiones have been recorded in Croatia so far and most of them are endemic. In last 15 years 19 new species for science were discovered in Croatia so it is to expect that the number of newly discovered species will further increase by application of DNA barcoding.¹

References:

[1]: Ozimec R. (2004): List of Croatian pseudoscorpion fauna (Arachnida, Pseudoscorpiones). *Natura Croatica* **13** (4): 381–394.

[2]: Popijač A., Sivec I. (2011): Stonefly (Plecoptera) fauna in the lower reach of the Una river in Croatia. *Entomologia Croatica* **15** (1–4): 131–143.