Abstract

Crossing borders: CROBOL meets ABOL

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The Austrian Barcode of Life initiative (ABOL) is successfully running since 2014. Recently, the Croatian Barcode of Life initiative (CROBOL) has been started at the Croatian Natural History Museum and is currently implemented also through the national project "DNA barcoding of Croatian faunal biodiversity" (Faculty of Sciences, University of Zagreb). Due to the postglacial recolonization of Europe from refugia at the Balkans and Eastern Europe, Austria and Croatia overlap in a broad number of faunal elements. While the biogeographic history was proven in a number of species, many others still remain under-investigated, despite possibly representing evolutionarily significant units (ESU) for conservation and/or comprising cryptic diversity.

The first DNA barcoding project joining ABOL and CROBOL is dedicated to water beetles of the family Elmidae (Coleoptera). Species of this family occur in running water habitats and are used as bioindicators for assessing water quality and monitoring of water ecosystems. Many of them are morphologically very diverse, and most probably represent complexes of closely related species.

In general, the scientific collections of both the Croatian Natural History Museum as well as the Natural History Museum Vienna (NHMW) are predestined for a transnational co-operation. A great number of animal samples of the taxonomic groups of interest (distributed in both countries) may contribute to joint projects. Within the rich biological collections of the NHMW a plethora of samples are stored, originating from different locations in Croatia, including also well-preserved tissues suitable for molecular genetic analyses. Exemplarily a recent project on DNA barcoding of scorpions included both Austrian and Croatian samples harboured in the Arachnoidea collection of the NHMW.

Therefore, the collaboration between ABOL and CROBOL is of primary importance and we aim to team up and to combine research strategies and data obtained by both initiatives.

Keywords: DNA barcoding, Austria, Croatia, shared fauna, cryptic diversity

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ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

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