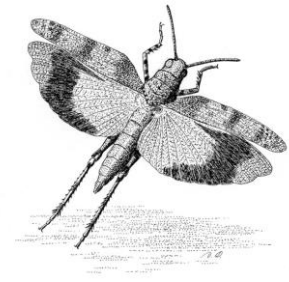


Forschungsförderung der DGfO



Antragsteller:

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Gefördertes Projekt:

Modes of speciation and radiation of the Poecilimon hamatus group, endemic to the Aegean region

Abstract

Poecilimon Fischer, 1853 is the most diverse genus in the Western Palearctic. The species group *Poecilimon hamatus* includes six closely related species with narrow endemic ranges distributed on several Aegean islands and in Western Anatolia. Species of this group are the only members of the subgenus *Hamatopoecilimon* Heller, 2011. Local endemic species are described from the islands of Andros and Ikaria. The complex radiation of the group is bound with the geological processes and climatic changes in the region during the Neogen. Phylogenetic analysis of the whole genus suggests that *Hamatopoecilimon* forms the most basal branch in *Poecilimon*.

The proposed study aims to infer about the temporal and spatial aspects of the evolution of the subgenus *Hamatopoecilimon* and clarify some of the distribution problems. Material will be collected during field trips planned in April-May 2018 and 2019 covering the range of the group. Total genomic DNA will be extracted from leg muscles by standard procedures (Aljanabi & Martinez 1997) or using kits for DNA isolation. Sequences from mitochondrial and nuclear markers (COI, ITS) will be amplified and then Sanger sequenced in both directions (Macrogen Europe). Consensus sequences will be processed and various phylogenetic analyses and time estimation of lineage separation events will be performed with suitable software (DnaSP, MEGA, MrBayes, RAxML, PAUP, BEAST). Results will be used for systematic and faunistic purposes and phylogeographic inferences.