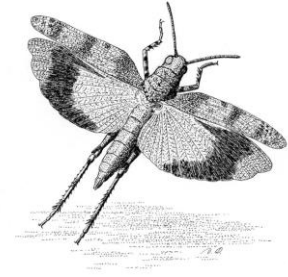


Forschungsförderung der DGfO



Antragsteller:

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Gefördertes Projekt:

Hybridization between Chorthippus oschei and Ch. albomarginatus in Central Europe: support of morphological and acoustic data and development of appropriate molecular design

Abstract

Closely related grasshoppers, the Carpathian Dancing Grasshopper (*Chorthippus oschei*) and the Lesser Marsh Grasshopper (*Ch. albomarginatus*) are two common species, which are divided in large subpopulations in Europe. Till now, previous observations have indicated that these two related species may meet in a hybrid zone in their Central European range. Despite numerous field observations, the determination of intermediate specimens may be rather difficult and borders of the possible hybrid zone in the Central Europe are still not clearly defined. Therefore, the main purpose of this study is to clarify the recent distribution of the *Ch. albomarginatus* group in the trans-border area of Hungary, Austria, Czech Republic and Slovakia analysing a number of stridulatory pegs and peg density, using a high-resolution microscope. To improve the objectivity of this study as far as possible, a complete photo-documentation of each hind femur will be available. Moreover, we attempt to distinguish these species and their possible hybrids by verifying them via different complex courtship songs recorded with digital camera and developing of an appropriate molecular design. Both methods will represent supplementary survey methods to support our morphological evidence. We believe that morphological data, acoustic investigation and development of appropriate molecular design will obtain more convincing results, that may clarify the current distribution of these two related species and their hybrids in Central Europe.