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in memoriam Antonio Galvagni (1924 - 2015)

PROGRAM



4. Dipartimento di Scienze Agrarie, Alimentari e Forestali, Università degli Studi di Palermo, Palermo, Italia
5. Fondazione Edmund Mach (FEM), San Michele all'Adige, Trento (TN), Italia

Italopodisma Harz, 1973 is a genus endemic to the central Italian Apennines inhabiting mainly grasslands and rocky areas at high elevations (1600-2800 m-asl). It includes nine species and five subspecies, all of them distributed on the summits of major mountain ranges. Due to the increasingly serious anthropogenic threats to high-altitude environments and their restricted range, three of these species are classified by the IUCN as 'Critically endangered' (*I. ebneri*, *I. lagrecai* and *I. lucianae*), three as 'Endangered' (*I. fiscellana*, *I. samnitica* and *I. trapezoidalis*), and one of them is considered 'Critically endangered (Possibly extinct)' (*I. baccetti*). Taxa have been described mainly based on the morphology of the aedeagus of the male genitalia. However, considering the lack of detailed molecular and morphological data, the taxonomy of this genus needs to be further investigated. The aim of this study is to integrate genomic data (ddRADseq, >4000 loci) with a geometric morphometrics approach on the shape of the dorsal stylets of the aedeagus of male genitalia to better define the taxonomic rank of the described species and subspecies, understand the phylogenetic relationships between taxa, and investigate the possible existence of hybrids and/or co-distributed species in the same or nearby localities. Preliminary results of PCA and CVA analyses on the shape of dorsal stylets show that the different putative taxa seem to separate into well-defined clusters in the morphospace even though some of these appear to partially overlap, suggesting the potential presence of hybrids and incomplete reproductive isolation. Morphometric analyses will be expanded by adding more specimens in order to integrate this information with genomic data, reconstruct the phylogenetic relationships among morphotaxa, and delimit species and conservation units within this genus.

Taxonomic and conservation genomic assessment of the Italian endemic genus *Italohippus* Fontana & La Greca, 1999 (Orthoptera: Acrididae)

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Italohippus Fontana & La Greca, 1999 is a genus endemic to the central Apennines mainly distributed at high elevations and linked to rocky habitats and dwarf juniper formations (1500 – 2200 m-asl). The genus includes three species: *I. albicornis*, *I. modestus* and *I. monticola*. The first two are endemic to the Matese Massif and Monte Terminillo, respectively, while the latter is present in several localities along the central Apennines. Due to their restricted range and the threatened environment in which they live, *I. albicornis* and *I. monticola* are classified by the IUCN as “Endangered”. These three species were described mainly based on differences in courtship song and forewing length. Due to the lack of clearly distinctive morphological characters, the aim of this study is to combine genomic data (ddRADseq, >4000 loci) and a geometric morphometric approach to delimit the taxonomic boundaries within the genus, reconstruct the phylogenetic relationships among the three putative species, as well as their affinity with the close genus *Chorthippus*, and determine the genetic connectivity among populations, which has important implications for the conservation of such peculiar narrow-endemic taxa.

The brief history of orthopterology in Italy and the birth of the GRIO (Gruppo di Ricerca Insetti Ortotteroidei - Research Group for Orthopteroid Insects).

GRIO members, WBA-World Biodiversity Association

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The GRIO (Gruppo di Ricerca Insetti Ortotteroidei - Research Group for