

IV

ECOC

Rovereto (TN) Italy

**4-6 JULY  
2024**

4TH EUROPEAN CONGRESS  
ON ORTHOPTERA CONSERVATION  
in memoriam Antonio Galvagni (1924 - 2015)

# PROGRAM



***Dinarippiger* gen. nov. (Tettigoniidae: Bradyporinae: Ephippigerini), a new saddle bush-cricket genus for *Ephippiger discoidalis* Fieber, 1853 from the Dinaric karst**

Sebastian Čato, Josip Skejo, Karmela Adžić, Maks Deranja, Marko Pavlović

University of Zagreb, Faculty of Science, Department of Biology, Evolution Lab

*Ephippiger discoidalis* Fieber, 1853 was a former name carried by a very common species of bush crickets inhabiting NE Italy, SW Slovenia, Croatia, Bosnia & Herzegovina, and Montenegro. Detailed analysis revealed that this well-known species belongs to an unknown genus, which led to the description of *Dinarippiger* Skejo, Kasalo, Fontana et Tvrtković, uncovering that not everything is known about it. The genus is at the moment monophyletic, with the only known species belonging to it being Dalmatian Saddle Bush Cricket, *Dinarippiger discoidalis* (Fieber, 1853). Morphologically *Dinarippiger* is somewhat of an intermediate between the genera *Ephippiger* Berthold, 1827 and *Uromenus* Bolívar, 1878. Distribution data, morphological analysis, and bioacoustic analysis provide evidence supporting taxonomical changes presented in the recent paper, but also indicate potential existence of cryptic species. The story of *Dinarippiger* has resolved some questions which had been pending for a long time, but has also unraveled new questions now serving as an inspiration for future research. *Zootaxa* 5271 (1), 49–90.

**An integrative taxonomy approach towards the conservation of the Italian endemic genus *Italopodisma*, Harz 1973 (Orthoptera: Acrididae)**

Francesco Forte<sup>1</sup>, Joaquín Ortego<sup>2</sup>, Marina Trillo<sup>2</sup>, Fabrizio Freda<sup>1,3</sup>, Marco A. Bologna<sup>1,3</sup>, Bruno Massa<sup>4</sup>, Paolo Fontana<sup>5</sup>, and Alessandra Ricciari<sup>1,3</sup>

1. Dipartimento di Scienze, Università degli Studi “Roma Tre”, Roma, Italia
2. Department of Ecology and Evolution, Estación Biológica de Doñana, EBD-CSIC, Seville, Spain
3. NBFC—National Biodiversity Future Center, Palermo 90133, Italia

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)**

Francesco Forte<sup>1</sup>, Marina Trillo<sup>2</sup>, Fabrizio Freda<sup>1,3</sup>, Marco A. Bologna<sup>1,3</sup>, Bruno Massa<sup>4</sup>, Paolo Fontana<sup>5</sup>, Alessandra Ricciari<sup>1,3</sup>, and Joaquín Ortego<sup>2</sup>