

Book of Abstract



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FAUNISTICS, BIOGEOGRAPHY AND INSULARITY

Bioacoustics in Orthoptera research: environmental recorders and the emblematic case of *Acheta pantescus*.

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During some research on pelagic birds in the circumsicilian islands in 2022, environmental recorders were used to record the sounds emitted by the pelagic birds throughout the night. During this research in some coastal locations on the island of Pantelleria, the sound of a hitherto unknown cricket was recorded on several occasions, which turned out to be a new species, *Acheta pantescus* Massa, Cusimano, Fontana & Brizio, 2022. The interesting aspect was not only the randomness of the finding, but also the method used to intercept the cricket, which made it possible, on an island much explored from an entomological point of view, to discover a new species with truly elusive habits that is very difficult to detect during the day. It is therefore proposed that these environmental recorders be used to carry out nocturnal searches in particular environments or to try to rediscover species of orthopterans with nocturnal or even diurnal habits that were thought to have disappeared or were only known to have been found by chance in remote times. The recorders are controlled by an application on a smartphone that allows recording only at night or only during the day or at defined times (e.g. half an hour every hour from sunset to sunrise).

KEY WORDS: Bioacoustics, Orthoptera, Pantelleria, cryptic species.