

Radiation of the genus *Cyphopterum* (Hemiptera: Auchenorrhyncha: Flatidae) in Macaronesia. A comparison of two closely related species

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The genus *Cyphopterum* is distributed in Europe, with 85% of the species being endemic to the Macaronesian archipelago (Madeira, Salvagens, Canary Islands and Cape Verde). Of the 7 monophyletic species groups, the less diverse ones, *C. adescens* and *C. moralesi* groups, have characters which are supposed to increase genetic divergence like reduced flight capability and comparatively large geographic distribution. A possible explanation for this could be the existence of additional unknown cryptic species within the less diverge lineages. Indeed, several misidentifications occurred in the past among specimens from Madeira. To test this hypothesis, two closely related species of *C. adescens* group, *C. fauveli* and *C. retusum*, occurring on several islands of Madeira were compared. Morphological analyses show that although both species show a large intraspecific variation, they are very similar in male genital structures, but differ in body size. The greatest differences were observed in habitat, distribution and host plant associations. Preliminary studies on male calling songs suggest that either two morphologically very variable species or several cryptic species occur.

Large morphological variation in island populations of *Eupteryx* leafhoppers (Hemiptera: Auchenorrhyncha: Cicadellidae) from Macaronesia

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Island populations of some animal and plant species are exceptionally variable in morphological traits, but the real causes of this large phenotypic plasticity are unknown. An analysis of two species of *Eupteryx* suggests that great variation may occur also in Macaronesian populations. *Eupteryx filicum*, a European species, is present in the Azores, Canary Islands and Madeira, and *E. capreola*, an endemic species of Macaronesia, is restricted only to Madeira and the Canary Islands. The most distinctive characters of these species are the shape of aedeagus and the extension of black pigmentation on the body. However, between these two general patterns, also intermediate individuals/forms occur. In order to separate these two species and determine the conservation status of the endemic species, a detailed analysis of their distinguishing characters (colour pattern variation and aedeagus shape) was performed. After studying more than 1000 specimens, an extraordinary variation was found in these morphological traits. A search for differences in the ecology and distribution did not give any result. It was concluded that these two species of *Eupteryx* are impossible to separate, and apparently all populations represent a single strongly variable species.