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THE ATLANTIC SIDE OF THE IBERIAN PENINSULA: A HOT-SPOT OF NOVEL MATERNAL HONEY BEE DIVERSITY

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The Iberian Peninsula harbors one the highest mitocondrial DNA (mtDNA) diversity ever reported for honey bee subspecies. This finding is explained not only by the co-occurrence of two divergent evolutionary lineages, western European (lineage M) and African (lineage A), but also by the higher variability of African and western European haplotypes. Indeed, over 36 haplotypes of western European and African ancestry, which form complex networks, have been reported for this area of the honey bee natural range. While studies on the diversity patterns of central and Mediterranean Iberian populations are abundant, the genetic composition of populations inhabiting the Atlantic side was until recently virtually unknown. Using the popular *Dra*I test (PCR amplification and restriction of the intergenic $tRNA^{leu}$-coxII region) we performed a fine scale genetic survey of the honey bee populations from Portugal. Adding to the 24 previously described African haplotypes, of which 17 are found in the Iberian Peninsula, 13 unreported haplotypes of African ancestry were found in our survey, which represent an addition of 54% of new variation. The fragment sizes ranged from approximately 800 to 1200 bp and the restriction length of the new haplotypes were very distinct from those reported in the literature. To further confirm the novelty of these haplotypes, we sequenced the aforementioned mtDNA region. Herein we present a phylogenetic analysis of these novel haplotypes.