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**1.<sup>a</sup> Reunião da Sociedade Portuguesa  
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**Resumos das  
Comunicações**

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# **Genetic diversity of the Sorraia Horse based on microsatellite *loci***

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The Sorraia horse, one of the 3 Portuguese autochthonous equine breeds, is believed to be historically related with the breeds originated from the Iberian horse.

With an effective size of less than 200 animals, distributed in two main subpopulations (Portuguese and German) and having a closed breeding system, is considered an endangered breed. Therefore, the analysis of genetic markers is a contribution to the genetic characterization of this breed.

The genetic variability of the Portuguese and German herds was evaluated using 6 horse microsatellite loci (ASB2, HMS3, HMS7, HTG4, HTG10, VHL20). DNA extracted from blood samples was amplified by PCR and the products were separated in 6% polyacrylamide gels using a fluorescence 4200S Li-Cor automated sequencer.

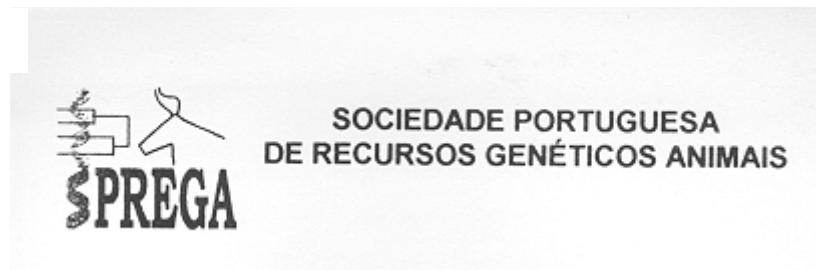
Heterozygosity, allele frequencies and polymorphic information content (PIC) were estimated for each locus. The Hardy-Weinberg equilibrium was calculated and the genetic structure was analysed using F-Statistics. The genetic relation with the other 2 Portuguese autochthonous horse breeds was established using genetic distance measures.

For the analysed loci the Sorraia horse showed low levels of variability with the number of alleles ranging from 2 to 5.

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## ***Oral presentation***

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