



**SOCIEDADE PORTUGUESA  
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**1.<sup>a</sup> Reunião da Sociedade Portuguesa  
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**II Congresso Ibérico sobre  
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**Resumos das  
Comunicações**

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# **An approach to the genetic management of the Sorraia Horse based on Studbook data**

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The Sorraia Horse is a Portuguese autochthonous breed recovered from 11+1 founders (4+1 ♂; 7 ♀) since 1937, with no further immigration. The small number of founders, the reduced effective number and the complete isolation of the breed has led to extremely high levels of inbreeding ( $F > 0.50$  for most living animals). Two of the founders are no more represented at the living population and genetic contribution of some under-represented founders are at great risk of loss, suggesting that the Sorraia Horse requires a conservation breeding plan in order to establish a long (or even short) term self-sustaining population.

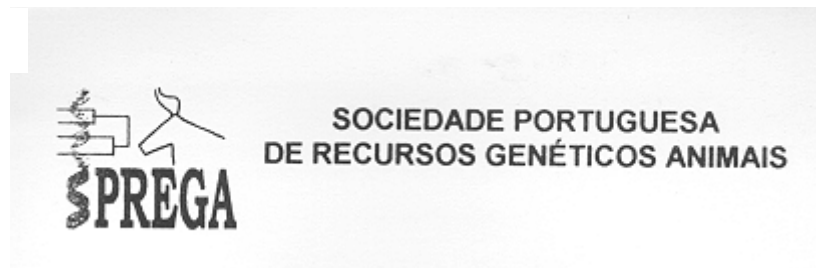
The subdivision of small and closed populations followed by further immigration between subpopulations can be pointed as a tool for genetic conservation. In 1975 the population was subdivided: 1 subpopulation was exported to Germany and 3 remained in Portugal. Since then no genetic flux was established between both countries.

The recent development of methods for pedigree analysis can be of great help to guide genetic management of captive populations. We used the GENES software (version 12) to perform the genetic analysis of the Sorraia Horse studbook data: historical analysis of gene diversity, founder genome equivalents and mean inbreeding coefficient; founder representation analysis, gene drop analysis and inbreeding and kinship calculations for the living population, identifying genetically important individuals.

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## ***Poster***

Organização:



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