



Adapting Animal Production to Changes for a Growing Human Population

International Conference
Lleida, May 19-21, 2010

Edited by

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WHEN WE NEED ANIMALS AND ANIMALS NEED US. THE PAN-EUROPEAN ARK AND RESCUE NET. WHITE RASQUERA GOAT CONSERVATION

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Breeds Ark and Rescue Net is concerned with the conservation and rescue of native endangered breeds. The proposed action is a concerted action to motivate, document and network, working towards rescue, in-situ conservation and use of under-utilised agricultural genetic resources in Europe. Transnational cooperation between partners and workshop participants is central to the transfer of knowledge and methods and, thus, the success of the action. To create a European Livestock Breeds Ark and Rescue Net, active networking is needed. Some traditional domestic species in Catalonia (Spain) include local breeds, referred to as 'native'. Yields from these native breeds (e.g., Pirinenc Català horse; Aranese, Ripollesa and Xisqueta ovine breeds; White Rasquera goat) tend to be lower than those of foreign or imported breeds. Moreover, economic changes (e.g., for the Catalan donkey and Catalan Heifer Dog) and cultural preferences (e.g., for the Empordà white goose) have endangered some of these breeds. Even 'fashion' (e.g., Catalan pigeons) cannot be overlooked in explaining this tendency. In Catalonia the White Rasquera Goat has received some recent attention. Conservation schemes have been conceived more out of a desire to have a natural tool deal with harsh woody vegetation than to pass their cultural or genetic legacy on to future generations. Some years ago, four private herds were established in the Vallès Oriental (100 and 215 individuals), Bages (40 individuals) and Osona (50 individuals) regions. Another herd (now about 180 animals) is established in Alt Urgell. All these locations are far (more than 150 km) from the original area (southern Catalonia). The purchase of property or animals is not an objective of the Ark and Rescue Net action, but all these in-vivo ex-situ introductions could be considered good tools for the survival of the breed. Thus, private uses of under-utilised animal genetic resources are alternatives to this breed conservation if not hampered by a lack of genetic criteria.

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INTRODUCTION

Some traditional domestic species in Catalunya (Spain) include traditional breeds, referred to as "native". While yields by these native breeds (e.g. "Pirinenc Català" trait horse; Aranese, Ripollesa and Xisqueta ovine breeds; White Rasquera goat) tend to be inferior to those of foreign or imported breeds, they are widely considered valuable from the viewpoint of gene preservation. Moreover, economic changes (e.g. Catalan Donkey and Catalan Heifer Dog) and cultural preferences (e.g. Empordanese white goose) have endangered some others of these breeds, and even "fashion" (e.g. catalan pigeons) can not be neglected.

Living in a geopolitical corridor such as Catalunya is, most of catalan breeds have been particularly prone to constant perpetual combination of external influences.

THE ARK AND RESCUE NET

Breeds Ark and Rescue Net is concerned with the conservation and rescue of native endangered breeds. The proposed action is a concerted action to motivate, document and network towards rescue, *in-situ* conservation and use of under-utilised agricultural genetic resources in Europe. The documentation of existing infrastructure, along with the resulting network, will be inventoried as an online, publicly accessible database. The wider objectives of EuroNatur's agricultural policy are to achieve a diversity in farming and landscape, which promotes sustainable agriculture and provides income and opportunity in rural communities. The objective of a functioning network to complement existing agri-conservation and rural development work can be realised.

The Transnational cooperation between the partners and the workshop participants is central in the transfer of knowledge and method and, thus, the success of the action. To create a European Livestock Breeds Ark and Rescue Net, active networking is needed. It is essential for the survival of rare breeds to be able to move animal groups into safety should their conservation be endangered.

None of catalan breed live under a semiferal regimen so their management is relatively easy.

THE WHITE RASQUERA GOAT

The Rasquera Goat is a native breed from S Catalunya. The goat is medium-lined, middle-sized, mainly straight-profiled and with dominance of black-spotted on a white background or solid white coat types. The horn shape is also characteristic, being the "prisca" type and the "wheel-shaped" type the most frequent ones. This goat breed also shows a strong sexual dimorphism, as well as remarkable morphostructural variability within genders. Its origin it is restricted to three catalan meridional counties (Ribera d'Ebre, Baix Camp, Baix Ebre and Terra Alta) where it attends a total of 5,288 individuals distributed between 19 herds. Despite the severe reduction of the census size of the breed that took place during the second half of the XXth century, haplotype diversity values observed were still high. Nowadays, White of Rasquera farms maintain a reproductive isolation 3 differentiated subpopulations has been confirmed according to the origin main grazing areas. Although it is no an endangered breed (NFN = 3,289 and $\Delta F-50\% < 5$) the high average age of owners and pandemic diseases (especially TBC) endanger the breed. Kid production is the main aptitud of the breed. Highly rustic, the breed is apt to survive with specially low quality or marginal food.

In Catalunya it has received some recent attention documenting that which already exists. Some conservation schemes have been dispersed more in the desire to dispose a natural tool to harsh lignified vegetation than to carry their cultural legacy over to future generations. But it represents a case control that is interesting to consider.

Some years ago, three herds in the Vallès Oriental (315 individuals) and Osona (50 individuals) were established. And in 2006 a little herd (nowadays of about 180 animals) was established in the mountains of Alinyà (Alt Urgell) to promote sustainable livestock and alternative income to a new farmer. All these locations are far (more than 150 m) from the original ares.

The purchase of property or animals is not an objective of the Ark and Rescue Net action but all these *in-vivo ex-situ* implantments could be considered as good tools to the survival of the breed. So, the private uses of under-utilised animal genetic resources if not hampered by a lack of a genetic selection are alternatives to breed conservation.

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ACKNOWLEDGEMENTS

Grateful thanks are due to Departament de Agricultura i Acció Rural for having released census information for this paper.

