Joint meetings of Documentation and Information, Ex situ conservation, In situ conservation **Working Groups**



Toledo, Spain, May 22nd - 23th 2023

Breed characteristics and traits related to adaptation in specific ecosystems and farming system







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AUTOCHTONOUS BREEDS

- > the classic claim:
 - ✓ local breeds are better adapted to natural conditions
 - √ harsh/poor environments
- ➤ little (if any) scientific proof

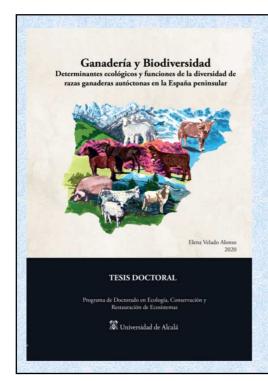
OBJECTIVE

- > Differences with 'productive' breeds
- > Traits related to adaptation
 - ✓ promote/select for such traits

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ACTION PLAN

- > Bibliographic review
- > Survey/questioner to stakeholders
 - ✓ what they think that are the good properties of the local breeds which make them more 'useful' than mainstream breeds
- > workshop to present the results
 - ✓ include in the 'audience' people from other areas (like Farming Systems) to look for synergies
 - ✓ maybe we could propose the organisation of a particular session in any of the future EAAP meetings



➤ General objective

... to analyse the patterns of distribution of livestock agrobiodiversity in mainland Spain to facilitate the development of integrated and sustainable productive management, compatible with the conservation of biodiversity.

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> Specific objectives

- ✓ Analyse the distribution patterns of the different species of domestic ungulates, considering the diversity of native breeds, to explore their adaptive capacity in relation to the environmental conditions of the studied territory.
- ✓ Investigate the relationship between the distribution patterns of the diversity of livestock breeds and different components of wild diversity.
- ✓ Quantify the influence of environmental determinants on the original distribution of local breeds and the effect of recent changes in land use on their current distribution.

Conclusions

- 1) the original distribution is basically driven by environmental factors
 - ✓ in agreement with the statement that local breeds are better adapted to natural conditions
 - √ the most influential factor is different for each species
 (e.g., it seems that altitude is they key factor in cattle)

- 2) domestic animals diversity runs in parallel with wild animal diversity
 - ✓ local breeds are not in conflict with nature
 - ✓ joint actions can be proposed for the conservation of both terms of biodiversity

- 3) human activities and changes in the land use are 'decoupling' breeds distribution and environment
 - ✓ originally local breeds were confined to harsh/low input areas
 - ✓ now they are kept in more productive areas
 - ✓ sometimes coexisting with mainstream breeds



- ➤ Is there any other example like this?
- ➤ Is it possible to conduct something similar somewhere else?
 - ✓ global or particular case studies

ACTION PLAN

- > Bibliographic review
 - ✓ Cited literature in the PhD thesis a good start
- > Survey/questioner to stakeholders
 - \checkmark coordinated by NC's \Rightarrow countries specificities
 - ✓ List of questions?
- **Dissemination**
 - ✓ target (people/domain)
 - √ 'environment' (independent activity/linked to other)

