



## Genetic Resources of Livestock in Greece

### Monitoring and Conservation of Rare Livestock Breeds in Greece

#### Geographic Fundamentals

Located at the southern rim of the Balkan peninsula, Greece has a predominantly rocky landscape, consisting mostly of mountains and islands. More than two thirds of the country are hilly or mountainous. Out of a total of 9,841 islands only 114 are inhabited. Forty percent of Greece's arable land is either meadow or pasture. Mild winters and hot, dry summers characterise the Greek climate. Experience shows that isolated islands as well as mountain valleys constitute classic areas of retreat for a rich agricultural biodiversity.



#### Agricultural Diversity

The Greek political dominance and high culture of antiquity are traceable, at least partially, to the wise application of agricultural resources and consequently a sufficient nourishing of the land. All over Europe, the influence of the Greek culture is palpable. Greek is one of the oldest languages of Europe and has left its permanent mark on all other European languages. For example, all over Europe today we recognise the well-established line of organic products by their Demeter label. Demeter is the Greek goddess of agriculture.

The not only biologically but also culturally/historically unique Greek agricultural diversity is, today, gravely endangered. The consequences, experienced all across Europe, of a modern agriculture oriented toward efficiency, are particularly devastating in a country which has always had to contend with harsh environmental conditions. Conservation initiatives are a rarity in Greece. There are only a small number of private projects to conserve live populations of livestock breeds. The public sector is primarily concerned with off-site conservation in gene banks. Until now, there have been occasional research expeditions, but the results of these have been either inadequately

documented or not at all. An overview of the actual situation regarding agricultural diversity is completely lacking. On the contrary: due primarily to economic constraints, increasing numbers of young people are losing interest specifically in traditional methods of agriculture. And the number of those who are still familiar with the old breeds and their care is dwindling. Consequently there is an urgent need to undertake a nation-wide inventory of traditional livestock breeds, assess potential need for action, and take relevant measures. Additionally, a nation-wide campaign is necessary to educate the public in order to popularise the cultural heritage of agricultural biodiversity in Greece.



*This breed inspired the legend of the centaurs, and was THE saddle horse for battle. Alexander the Great is thought to have ridden Thessaly horses during his conquests and as a result the breed spread as far as western China. But Thessaly horses are also the “poster horse” for adaptation to climatic and environmental conditions. Today only a few animals of this breed survive: conquering armies no longer advance on horseback...*

## Project Structure

### Phase I: Monitoring

An initial overview of the situation is available through **research of the literature** on the Internet, existing literature, and data banks of the FAO, as well as yet to be developed sources. In this phase it will be critical to build and cultivate contacts with key persons in Greece. Results of this effort will indicate whether it is more meaningful to compile information by breed or locally, specific to the thirteen regions of Greece. Due to the geographic diversity of the country, it is essential to work closely with a range of local individuals. Public entities like gene banks and institutions be folded into the work. Experts and interested individuals will be mobilised through a **questionnaire**.

A preparatory conference in the form of a **workshop** with appropriately chosen key persons will build the foundation of the actual monitoring work. Within the framework of this meeting it will be clarified who will conduct the empirical evaluations, since there are frequently no existing data and information. In order to achieve the greatest efficiency and verifiability of the results, a model will be generated at the workshop, or immediately thereafter, according to which the empirical evaluations are to be processed. Consequently it is critical to conduct searches in order to collect empirical and reliable data. These searches will be carried out in part by local experts.



*Greek Shepherd: This breed was already mentioned by Aristotle, Plato and Oppianus. The Greeks used the breed as early as Homer's time. Today's Greek Shepherd evolved from the Molossoi breed, which guarded sheep herds in the isolated regions of Pindos.*

*n.B.: When Odysseus, after 20 years of wandering and dressed as a beggar, arrives at his palace with the help of Athena, he is recognised at the entrance by a very old dog. This was Argus, the dog who waited twenty years for the return of his master.*

## **Phase II: Evaluation**

Based on collected data and information, an initial degree of endangerment can be determined for each breed. Additional criteria such as the status of conservation (are there only a few remaining farmers raising the animals or is a conservation project already in place?), government recognition and promotion, etc., will constitute the framework for evaluating potential **need for action**.

This evaluation will be recorded in a report and published on a CD-ROM (in English). The results of the study will thus be made accessible in particular to the Greek contacts. On-location media coverage will help sensitise the general public.

## **Phase III: Initiation of the Conservation Work**

The increased awareness cultivated through the monitoring work should then, as much as possible, find application. A subsequent **Workshop** will explore strategies and opportunities for conservation and the first efforts will be initiated locally.

It is expected that in the course of this work extremely endangered remnants of old breeds will be discovered. In these instances, immediate and unorthodox tactics are sometimes necessary - for instance the removal of animals to effectively rescue them from disappearing. Thus it is important to have access to an emergency fund even during the monitoring work.

*On numerous islands true rarities such as this Karystos goats with long corkscrew horns from the Aegean island of Euboa can still be found (descended from the Markhor wild goat, and not from Bezoar as are the other goat breeds). The livestock populations of many islands have not yet even been inventoried.*

