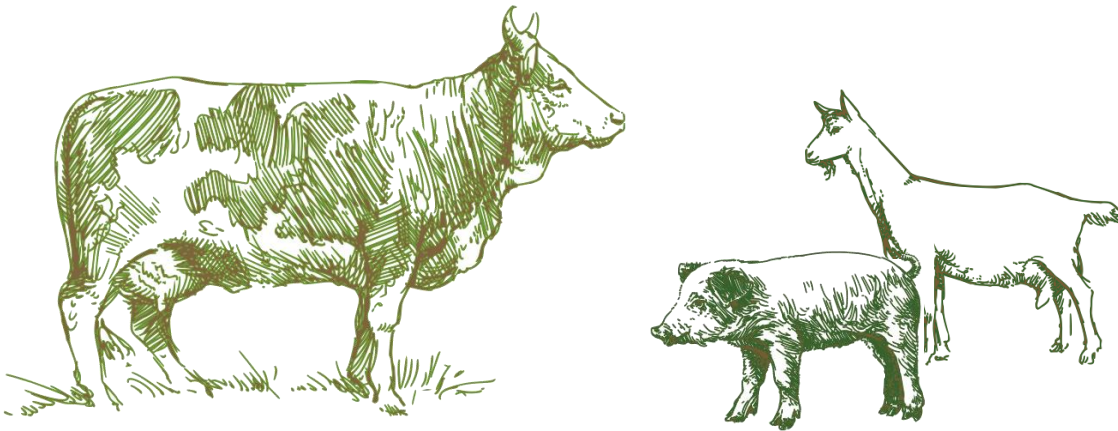


Activities with regard to animal genetic resources



SAVE
foundation

ERFP General Assembly, 30 August 2024, Florence

SAVE Foundation



- Founded 1993 in Utrecht, NL
- pan-European umbrella organization
- purpose: halt and reversion of the erosion of genetic diversity in agriculture
- 24 members in 15 European countries

SAVE | DANMARK



Kosovar Balusha sheep

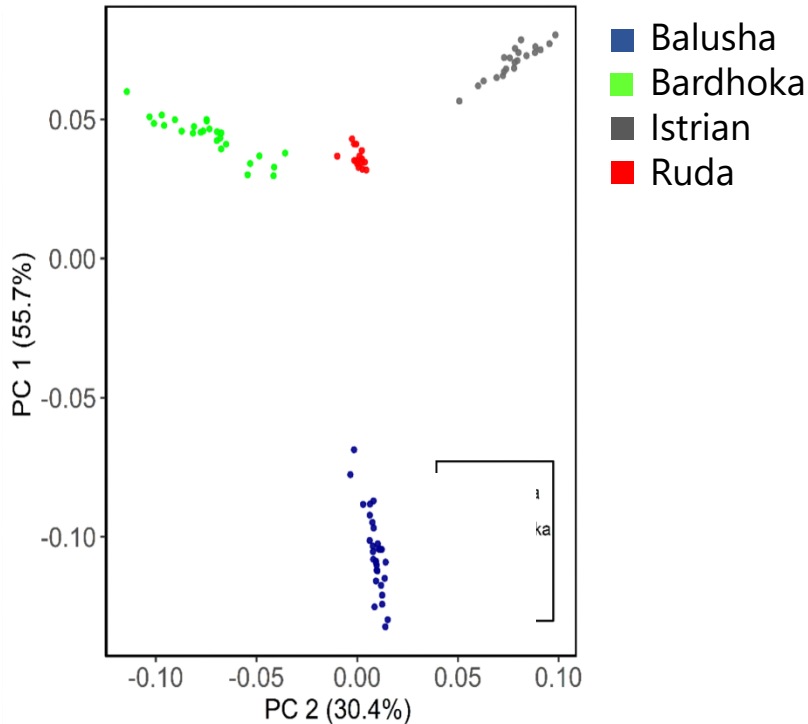


- Local sheep breed, strain of Pramenka sheep
- evolved in mountainous regions of Kosovo over 2000 years
- SAVE Foundation initiated and funded a genetic study:
- Adeniyi et al. (2022) Capturing Genetic Diversity and Selection Signatures of the Endangered Kosovar Balusha Sheep Breed*
 - SNP chip analysis of Kosovar local sheep breeds:
 - Balusha (BAL, n=30)) and Bardhoka (BAR, n=26)
 - compared to Istrian (n=21) and Ruda (n=15) (SNP chip data available)
 - 39,214 autosomal SNPs, 92 samples

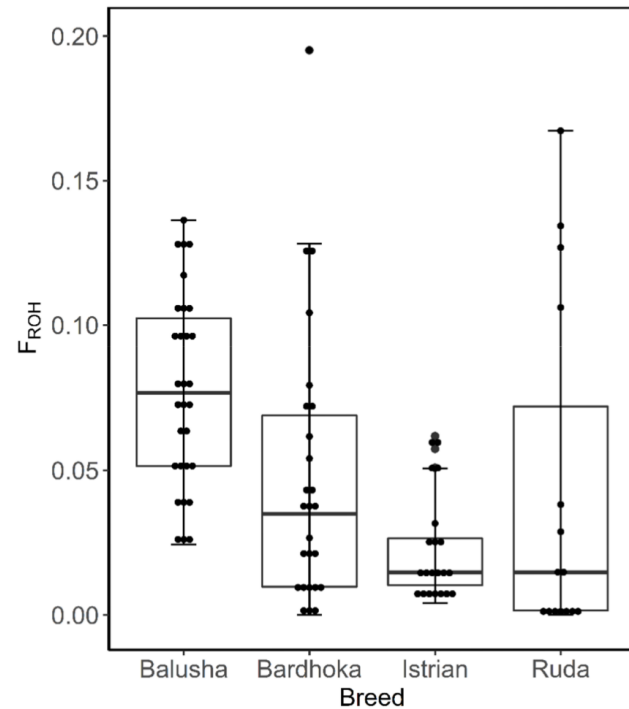


* Adeniyi et al. Genes 2022, 13, 866. <https://doi.org/10.3390/genes13050866>

Genetic diversity of Balusha sheep



Principal component analysis plot for the first (PC1) and second (PC2) components of investigated sheep breeds.



Box plots of within-breed distribution of ROH for each sheep breed.

* Adeniyi et al. Genes 2022, 13, 866. <https://doi.org/10.3390/genes13050866>

Conservation of Balusha sheep



- Project proposal
 - Development and implementation of a conservation programme
 - Formation of new nucleus groups
 - study trip and workshop to inform stakeholders about the importance of conservation and to demonstrate options for valorization
 - Public relations to raise awareness
- Fundraising is running but difficult

[Project-concept-Conservation-of-Balusha-sheep-
SAVE-Foundation.pdf](#)



Cattle breeds of the Dodecanese

(1/3)



- Dodecanese: archipelago comprising 12 islands with Rhodes being the main island
- There are three local cattle breeds:
 - Agathonisi-Lipsi: 110-115 cm, used for meat production
 - Nisyros: 122-125 cm, used for meat production (formerly also milked)
 - Kastelorizo: 98-110 cm



Agathonisi-Lipsi cattle



Nisyros cattle



Kastelorizo cattle

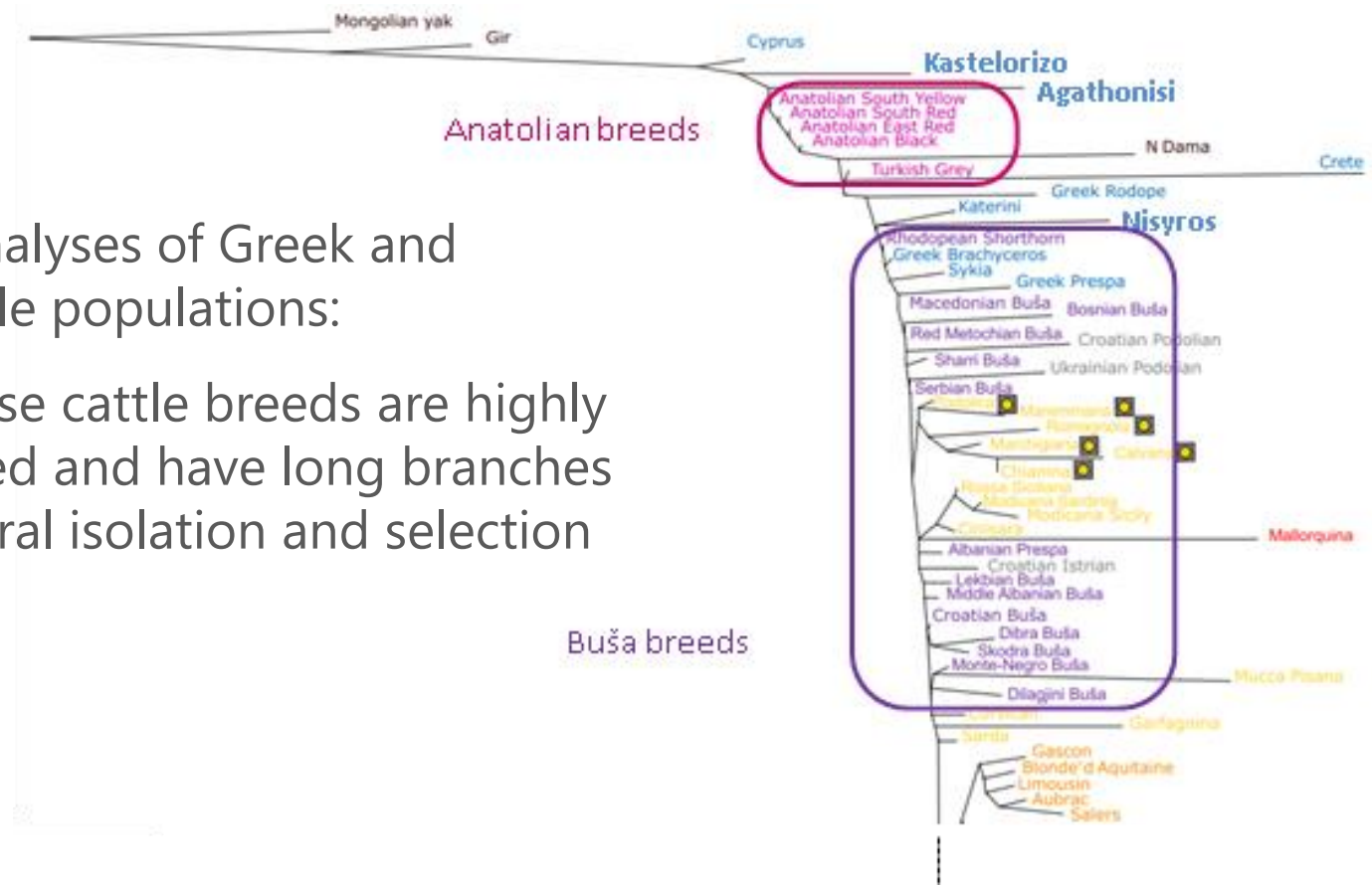
Cattle breeds of the Dodecanese

(2/3)



Genomic analyses of Greek and Cypriot cattle populations:

- Dodecanese cattle breeds are highly differentiated and have long branches due to natural isolation and selection (islands)



Papachristou et al. Genet Sel Evol (2020) 52:43; <https://doi.org/10.1186/s12711-020-00560-8>

Cattle breeds of the Dodecanese

(3/3)



- During the past 11 years Stefano Dellepiane from the Greek NGO Amalthia (partner of SAVE Foundation) visited the islands on a voluntary basis and kept track of the herds and animals
- Monitoring trip in summer 2023
- Animal numbers: Agathonisi-Lipsi: ~50, Nysiros: ~40, Kastelorizo: 12
- Project concept developed
 - urgent actions
 - implementation of herdbook
 - conservation programme
 - genetic analyses
- Fundraising is running but difficult



Survey: Zoological gardens and rare livestock breeds



- **Aim: if and how can zoological gardens play a role in the conservation of rare livestock breeds?**
- Online survey end 2023/beginning 2024
- Survey was shared with the networks of EAZA (European Association of Zoos and Aquaria), VDZ (Association of German Zoological Gardens) and FAO DAD-net
- 46 zoos participated, 43 were included in analysis

Zoological Gardens and rare livestock breeds (2/2)



Survey is divided into two sections:

1st part:

general questions regarding European livestock breeds in zoos, i.e. whether the zoological garden already keeps or breeds rare livestock breeds, in which activities the zoo is or could be involved etc.

2nd part:

addresses zoos that keep rare livestock breeds and asks for data on livestock populations and use.

Analysis of survey is in progress. 😊

Arca-Net

www.arca-net.info



- Originally initiated to assist farms in the promotion of products from traditional livestock breeds
- Extended to cover also crop varieties
- August 2024: 774 institutions registered of which **482 keep animals (15 animal species, 790 breeds)**

The screenshot shows the Arca-Net website interface. At the top is a navigation bar with links: Arca-Net, Search, Map, and About. Below this is a language selection bar with flags for Germany, UK, France, and Italy. A search bar is present. The main content area is titled 'Arche-Hof Birk'. It features a tabbed interface with 'Details' selected, showing the farm's address (Arche-Hof Birk, Helingerstr. 9, DE - 87480 Weitnau - Hellengerst), contact information (Telefon: 08378/932669, Fax: 08378/923494, Email: archehof@bio-birk.de, Website: http://www.bio-birk.de/), and category (Ark Institution, City Farm/School Farm). An 'Arc' section shows 'GEH'. To the right is a photo of a cow in a field. On the left sidebar, there is a 'Networks' section showing a thumbnail of the SAVE Foundation website and the 'European Agrobiodiversity Network' logo at the bottom.

Arca-Deli Award and Newsletter



- Covers both local livestock breeds and crop varieties



Annual award for excellent products made from local livestock breeds or crop varieties
50 products have been awarded since 2011



Arca-Deli Awardees 2024: [SAVE-agrobiodiversity-4-2023-EN.pdf \(save-foundation.net\)](https://save-foundation.net/save-agrobiodiversity-4-2023-EN.pdf)

European Seminar on Agrobiodiversity & Annual SAVE Meeting



9-11 Sept 2024
Torino, Italy

Programme

MONDAY 09.09.2024 SAVE Annual Meeting
University of Torino, DISAFA, Room A5 ([link to site map](#))

13:00 Arrival and welcome of participants in Grugliasco at the Department of Agriculture, Forest and Food Science of the University of Torino

13:30 **SAVE Annual Meeting**

- Meeting of the Council of Cooperation Partners
- Pitch Talks
- Project reports and information
- Applications to the Board of Directors
- SAVE Board-Meeting

15:30 Visit to the barn of the DISAFA with presentations of local breeds

20:00 Dinner in Torino

TUESDAY 10.09.2024 The Grand Tour-day

09:00 Departure by bus from Torino

10:30 **Guided tour to a local breeder in "Alpe Azzarà"**
At the pastures of the Alpe Azzarà we will see the local Barà cow, the Tacola and Biellese sheep and the Furià goat breed (walk to the alp takes about 1 hour)

14:00 **Lunch at the agriturismo "Delle Viole" with a typical Piedmontese menu**

15:00 **Visit to Scuola Malva**
Malva school is a regional conservatory of local varieties of apple, pear and vine, and much more; <https://scuolamalva.it>

20:30 **Dinner in Torino**
Presentation of Arca-Deli Award by jury

WEDNESDAY 11.09.2024 SYMPOSIUM DAY
University of Torino, DISAFA, Room A1 ([link to site map](#))

09:00 **Welcome and key note "Climate change and animal production"**
Riccardo Fortina, R.A.R.E. and University of Torino

Preparation of the Third Report on the State of the World's Animal Genetic Resources for Food and Agriculture
Paul Boettcher, FAO

Application of genomic technologies in livestock: animal biodiversity preservation and adaptation to climatic issues
Giustino Gaspa, University of Torino

Climate change, range expansion of diseases vectors and resilience of local livestock breeds
Daniele De Meneghi, University of Torino

10:50 - 11:10 **Coffee break**

Is there a future for local Greek breeds?
Ioşif Bizelis, Amalthea - Agricultural University of Athens

COST Action CA22112 European Network on Livestock Phenomics (EU-LI-PHE): Boosting phenotyping in livestock species
Dr. Adna Ašić, Verlab Research Institute, Sarajevo, Bosnia and Herzegovina

Conserving, safeguarding and promoting biodiversity: is it a real opportunity today?
Cristiana Peano, University of Torino

Network Semi Rurali's Resilient Rice
Michele Salvan, Semi Rurali

Discussion

13:00 **Lunch at the cafeteria of the University**

14:00 **Free tour in Torino**

17:00 **End of Meeting**

Registration and costs

For participation in the SAVE Annual Meeting (9th to 11th September 2024) there is a fee of 80,-EUR per person that covers costs for excursions and the lunch on 10th and 11th September. Participation in the Symposium on 11th September 2024 is free of charge. Lunch is not included for participants who only attend the symposium.

Registration is possible via this link: <https://survey.lamapoll.de/Registration SAVE-Annual-Meeting European-Seminar-on-Agrobiodiversity 2024> or by e-mail to nonja.remijn@szh.nl. Please register the latest by **15th August 2024**. The number of places is limited. Registration is valid once it has been confirmed by SAVE Foundation by e-mail.

picture: © R. Fortina, R.A.R.E.

<https://save-foundation.net/wp-content/uploads/2024/08/European-SoA-and-SAVE-Annual-Meeting-2024-programme.pdf>



Thank you
for your attention

www.save-foundation.net