

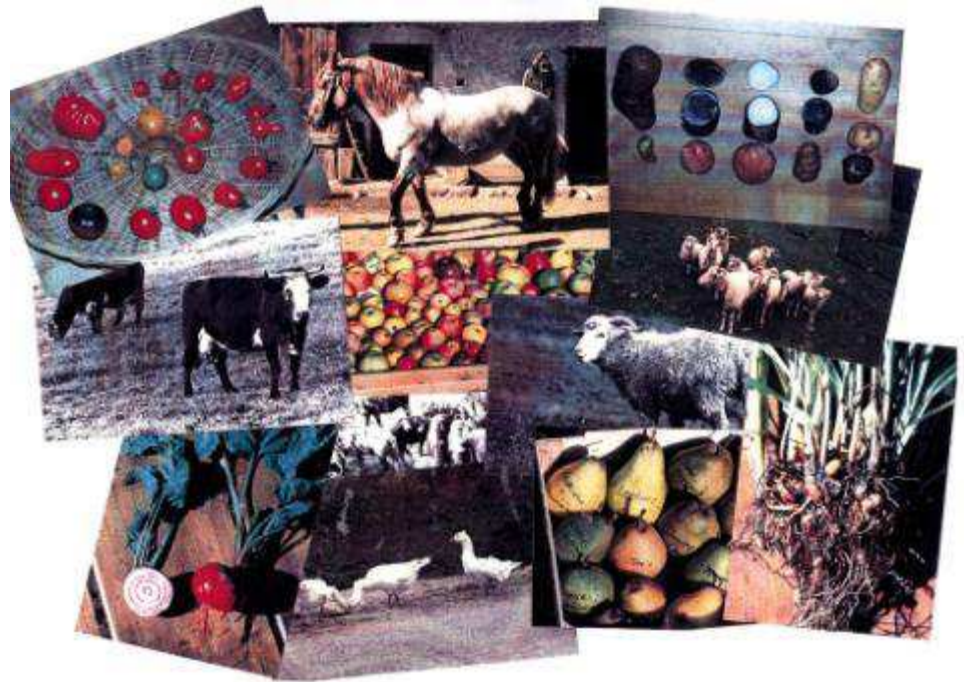


**SAVE** foundation

Safeguard for Agricultural Varieties in Europe  
Sicherung der landwirtschaftlichen ArtenVielfalt in Europa  
Sauvegarde pour l'Agriculture des Variétés d'Europe

**2015**

# SAVE Foundation Activity Report



Activity Report for the period September 2014 – September 2015

# Foreword

Over the last twelve months we were all helpless witnesses seeing people losing their home, because they are not safe there anymore. But we also could see how the unjust financial system, mismanagement and corruption drives an entire country to the brink of the abyss. Therefore, it has symbolic meaning that our annual meeting is taking place in Greece. We feel with the people. But we also think that the return to old values and classics could strengthen the basis of any society. This applies not only to Greece. The



SAVE Foundation with their use for rare, traditional livestock and crops is one of the pioneers of a new trend which is becoming increasingly apparent. In city-farms goats are settled, people take up the hoe and plant lettuce. The connection to productive nature is restored. The meaningful work with animals grounds the people. SAVE wants to be present with projects which promote agriculture in the cities. Because "think global act local" has become more than just an empty phrase. Green areas in the city prevent the overheating of the surfaces in hot summers, limiting CO<sup>2</sup> emissions when vegetables are eaten where they were planted and also children can learn that an apple does not grow in the supermarket.

At the same time traditional knowledge is being lost rapidly. For the SAVE Project Office, the year

2015 stands for "Fundus Agri-Cultura Alpina", which is now available on Internet as wiki-based platform for traditional knowledge in the Alps and offers more and more information ([www.fundus-agricultura.wiki](http://www.fundus-agricultura.wiki)). Sometimes writing down old

knowledge of culture techniques is a race against time to get information before people die and take their knowledge with them.

Since last winter the SAVE Network Office and the SAVE Project Office have changed

a lot, working in new places and with mainly new staff. Both the Network Office in Wageningen and the Project Office in St. Gallen have started this new beginning dynamically. Wageningen with the detailed and informative study to a stronger and broader SAVE Network and the Project Office with the development of a new website. Both want to take the momentum to place SAVE there, where policy decisions are made which affect endangered crops and livestock, where model forms of traditional agriculture with rare breeds and seeds can arise and where society must be convinced of the value of agriculture in times of climate change.

**Martin Arnold, SAVE Project office**

# A new Model of SAVE Foundation

At the SAVE annual meeting in September 2014 in Lonjsko Polje, Croatia, the SAVE bodies decided to split up the SAVE network and project activities and finances. The Network Office has moved from Konstanz, Germany, to Wageningen, The Netherlands, and has its residence now at the address of SZH (Stichting Zeldzame Huisdierrassen). The SAVE Project Office changed the office location, but stays still in St. Gallen, Switzerland. Both offices have to organize their finances themselves. The fee that the members of SAVE are contributing each year is allocated for running the Network Office. The Project Office is still financed through projects financed through third parties.



In order to create an active and productive Network Office, an advisory report "Towards a stronger and broader SAVE Network" including a comprehensive inquiry was drafted by students of the University Wageningen, the ACT (Academic Consultancy Training) group under supervision of the SAVE network team members. The objectives of the questionnaire were to collect the needs and wishes of the members regarding the SAVE network activities and to discover what price they are willing to pay for these activities. It was the intention to do this in the last part of 2014, but in concert with the ACT staff it has been carried out

in spring 2015. The results will be discussed at the SAVE annual meeting in September 2015 in Greece.

In the meantime the SAVE-Network Office team has been composed. The members are: Albert Meijering member of the SZH board (animals), Obe Bootsma chair of `De Oerakker` (plants and seeds), Nonja Remijn manager of the SZH project office and Geert Boink chair of SZH and SAVE

foundation. Staf Van den Berg of SLE (Stichting Levend Erfgoed), Belgium, is will control the finances of the Network Office. Up to now the finances were managed by Anne Meinema, the treasurer of SZH. In good co-operation with Nikos Kostaras of the Greek organization committee the Network Office team made the preparations of the Annual

Meeting 2015.

Last year we were looking for the right division of tasks and responsibilities between the Network and Project Office. For instance a good running and accessible website is one of the conditions to create an open communication for both the Network and the Project Office. Will this be one website of SAVE foundation or two to be run by each office separately? How can we create a broader Network in Europe? This and more questions, I hope, will be answered during next Annual SAVE meeting 2015.

**Geert Boink, Chairman SAVE Foundation**

# Topic Network

---

## BushaLive: Living Diversity of the Balkans

---



An example for the large diversity within a meta population shows the Busha cattle of the Balkans. This was investigated within the project “BushaLive” supported in the frame of the UN-FAO Funding Strategy for the Global Plan of Action for Animal Genetic Resources in close collaboration with the national coordinators and actors since spring 2013.

At the beginning of March 2015 stakeholders of the different fields of conservation met in Dubrovnik, Croatia, to discuss the results of the field research and molecular genetic investigations of the occurring strains of Busha cattle in Albania, Bosnia & Herzegovina, Bulgaria, Croatia, FYR of Macedonia, Kosovo\*, Montenegro and Serbia. In collaboration with different universities and farmers a comprehensive survey of individual animals took place as well as blood samples of at least 20 animals per country and region. The blood samples were investigated through the SNP chip technology at the Ludwig-Maximilian University of Munich, Germany. Here already many molecular genetic studies on European cattle took place and therefore a lot of material for comparison is available. The aim of the Project was to find out the similarities and differ-

ences of the different strains of Busha cattle in the Balkans. The brachyceros dwarf cattle breed occurs in all Balkan countries but in different strains. The Busha cattle are endangered by the changes in agriculture as well as crossbreeding with larger breeds. The still-occurring strains are kept in the Balkan countries in small or very small numbers. The investigations took place to find out a suitable model for cross-border conservation of Busha cattle.

The samples used included 2 Outliers, 14 Busha strains, 42 European breeds from a large geographical area divided into clusters

Country	Breed name	Abr. Breed	Sampling area	Country	Breed name	Abr. Breed	Sampling area
Albania	Lekbian Busha	LKB	(Lekbibaj)	Kosovo	Dukagjini Busha	DGB	Deqan
Albania	Skodra Busha	SKB	Back Rrjoll, Rrjoll	Kosovo	Red Metohan B.	RMB	(Blag, Kuklibeg)
Albania	Dibra Busha	DBB	Dibra Lashkize & Dardhe	Kosovo	Schaari Busha	SHB	Dragash
Albania	Middle Albania B.	MAB	(Divjake)	Monte Negro	Motenegrian B.	MNB	Andrijevica, Plav-Gusinje, Ulcinj, Berane, Plav, Herceg Novi, Niksic
Albania	Prespa Cattle	PRE	(Prespa)	Serbia	Serbian Busha	SRB	Stara planina
Macedonia	Macedonian B.	MKB	Strumica, Ohrid-Kicevo, Kvatraci, Tpejca	Bosnia and Herzegovnina	B&H Busha	BHB	Buhovo
Bulgaria	Rhodope Shorthorn	RHS	Kardzali, Haskovo, Smolyan	Croatia	Croatian Busha	HRB	Sestanovac, Gospic

The results showed the impressive amount of diversity that still exists. There is a high diversity in all samples. The relationships between the individual animals samples were studied using Identity By Descent (IBD) Probability provide a Genome-wide realised relationship based on genetic markers.



The expected inbreeding can be assessed to show the state of the sampled cluster population and can then be compared to the global diversity. In this way the introgression from other breeds can also be judged so the status of “purebred Busha” can be given. Also the relationships between the strains sampled in the project can be shown. Through this animals can be excluded from the conservation programme and others can be chosen for genetic exchange with other groups. This is the reason why so many European breeds were included as references in the analysis.

Including some older samples in the project and comparing with the 2014 samples shows that both inbreeding and introgression are slowly increasing. The results need to be taken into the practical work in the field and they will help decision mak-

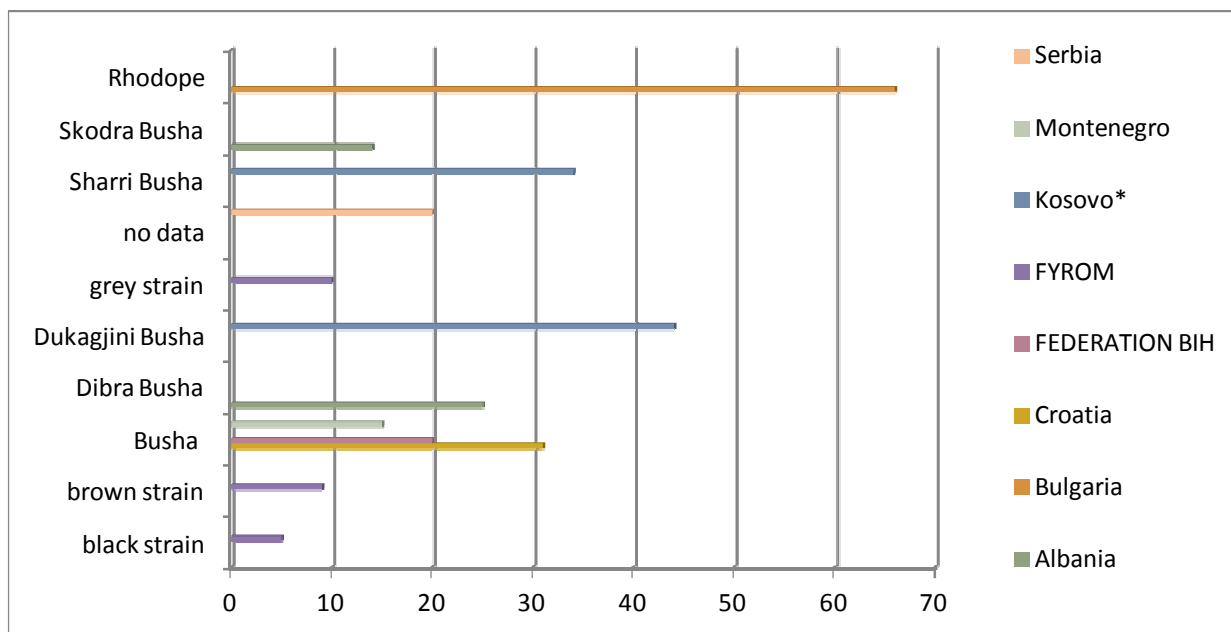
ing for a (cross-border) conservation practice. This has previously been based on phenotypical information. The Busha is a part of the cultural value of the area and this project has connected it to the most modern technologies, which is very important for the future conservation. The project BushaLive shows that SNPs (Single Nucleotide Polymorphism) are very important for the future of conservation projects of animals in small populations as inbreeding and introgression can be minimised.

### Preliminary Results of the survey

224 surveys were received from 7 countries; there were 203 females / 21 males. As can be seen in this table the population trend is mainly decreasing:

Country	decreasing	increasing	no data	stable	Total
Albania			39		39
Croatia		16	15		31
FEDERATION Bosnia and Herzegovina	20				20
Macedonia (FYROM)	3			21	24
Kosovo*	33	36		9	78
Montenegro	9			6	15
Serbia	20				20
<b>Total</b>	<b>85</b>	<b>52</b>	<b>54</b>	<b>36</b>	<b>227</b>

### Different strains of Busha in the countries



Also phenotypical characteristics are very different. The occurrence of black or dark mucous membranes for example has been used as a phenotypical indicator of the Busha breed. However, animals with “tiger” markings or in the same blood lines tend to have light mucous membranes. The hair colour of Busha is always unicolour and not patched or in different colours. The so called “tiger” Busha are usually tigated (brindled) over the whole body. The occurrence of an “eelstripe” has previously been used a phenotypical indicator of Busha. However, this only present in few populations in Croatia and Serbia.

The survey data show the difficulty of comparing phenotypical data collected by different people as much of it is a question of interpretation. Only the data that are objective (withers height etc) can really be used together with the genotyping to create a profile of the animals.

### **A strategy for ongoing breeding management**

Within each country it is important that the breeders are in contact with each other and that the recording of the strains takes place. This recording should also include the ISO codes to support the ongoing exchange of animals or material with a unique ID of the animals. The exchange, guided by the results of the genotyping, can be used to solve the problems of inbreeding and introgression within population groups

### **Conclusions**

Regular exchange and reporting is an important objective so that the aims of the BushaLive project do not get forgotten and that the conservation of the Busha cattle is assured.

The use of the animals is the best way to conserve them and to increase the stock numbers. Not only products but also services need to be assessed and promoted. Busha keeping is one of the best models for eco-conservation in protected areas – for example in grassland management or food for vultures. Organic farming is a way of adding value to products and gaining more subsidies and recognition for the ecological value of the Busha.



# Model Project

---

## Conservation and Adding Value to Fruit Varieties in Transylvania

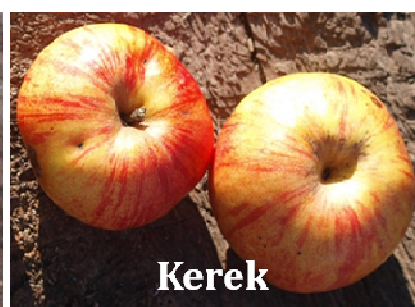
---



**Seiler**



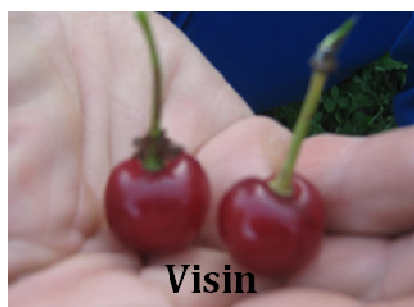
**Altvater**



**Kerek**



**Richis**



**Visin**



**Malancrav**

The project “Sustainable Agriculture in Remote Areas of Romania: Conservation and Adding Value to Fruit Varieties” finished in late Spring 2015. During the project 183 fruit varieties were recorded and collected in Transylvania. It was supported by the EU enlargement contribution of Switzerland (Swiss-Romanian Cooperation Programme). Within the project, initiated by SAVE Foundation and the project partner, the Mihai Eminescu Trust (MET), traditional fruit varieties in Transylvania will finally get more public attention. This happens at almost the last minute, because much of the former diversity is already irretrievably gone. Local and literature research, a meeting of experts and first steps to a networking of potential and existing stakeholders as well as a list of rare regionally typical varieties was created in 2011. In the fruit growing Institute Bistrica 22 fruit varieties have been grafted in April 2013. The young trees were planted in winter 2014/2015 in Mălâncrav close to a newly established fruit trail and in the school garden of the village Homorod (Brasov County). In planning is another planting in the outer ring of the fortified church Biertan (Birthälm).

Within the project, the people became attentive to their local fruit tradition. Also part of the Romanian universities and botanical gardens became interested and on international level among European Pomologists. Thus, the project is a complete success in terms of the conservation of old varieties and in terms of activation of the civil society. This would not have been possible without the support of many donors. Through (time-consuming) search and preliminary work SAVE Foundation could develop a coherent overall picture which was successfully incorporated into the "whole village concept" of the Romanian partner.



On-site activities have been:

- Workshop with stakeholders and experts incl. planning of measures and priorities with local partners (August 2013).
- Preparation of search lists and variety report forms by SAVE Foundation; Application on-site by MET staff in different villages of Transylvania.
- Variety determination event with local experts (autumn 2013).
- Inventory of discovered varieties for download in German and in Romanian: ([http://agrobiodiversity.net/romania/romania\\_fruit\\_inventory.htm](http://agrobiodiversity.net/romania/romania_fruit_inventory.htm) )
- Grafting course with certificate and course materials with more than 30 participants from 5 villages and 2 cities of Transylvania.
- Establishment of a 3 km long trail in the Mălâncrav fruit plantation.
- Creation of a primary collection adjacent to the trail.
- Demonstration and training garden on the grounds of the school building Homorod (Brasov County) teaching materials for teachers and students.
- „Apple Day“ (October 2014): Transylvanian varieties were shown and tasted, as well as more than a dozen Swiss varieties for comparison.
- Creation of the "Asociatia Livezile Transilvaniei - Orchards Association of Transylvania".
- Flyer "Orchard Malmkrog" in German, English and Romanian

Information on the project is documented on [www.agrobiodiversity.net/romania/index.htm](http://www.agrobiodiversity.net/romania/index.htm) → Fruit Varieties.

The future will show how the newly founded association will continue the conservation work. In Central Europe it is often difficult to motivate people to volunteer. This is even more the case in Transylvania. Here people had bad experiences with official bodies in the past. There is also much poverty, unemployment and sometimes hopelessness in Transylvania.

Non-Romanians can become members or sponsors of the "Asociatia Livezile Transilvaniei - Association of Orchards Transylvania". Contact: Daniel Marton Alexandru – 0744 572325, mail:

[office@livadamalancrav.ro](mailto:office@livadamalancrav.ro) (Romanian, English).

Supporting this conservation project has literally helped to preserve a genetic treasure of European significance at the last minute. In particular, we are grateful to the Heidehof Foundation, Germany and the Swiss-Romanian Co-operation Program.



9

# International Year of Soils 2015



2015 is proclaimed as the 'International Year of Soils' (IYS). The Food and Agriculture Organization of the United Nations (FAO) implements the IYS 2015 in the frame of the Global Soil Partnership ([www.fao.org/globalsoilpartnership/en/](http://www.fao.org/globalsoilpartnership/en/)), and with the support of EU and the collaboration of governments and of the United Nations Convention to Combat Desertification (UNGA resolution).

The goal of the IYS is to raise awareness on the importance of "Healthy soils for a healthy life" and understanding of the importance of soil for human well-being, food security and essential ecosystem functions.

Soil is an essential, finite and non-renewable natural resource. The area of fertile soils at European and global level is limited and soils are increasingly degraded or irreversibly lost due to poor management and loss to urbanization. Every year an area of the size of Berlin is taken over across the EU by urban and infrastructure expansion and there is an increasing demand for land. 25% of the EU territory (1.3 million km<sup>2</sup>) is affected by soil erosion by water. The number of contaminated sites is estimated between 450,000 and 600,000.



2015  
International  
Year of Soils

The launch of the IYS was organized world-wide on 5 December 2014 on the occasion of the 1st official World Soil Day. The official celebration as part of the 69th session of the UN General Assembly in New York was coupled with other ceremonies at FAO Headquarters in Rome and Bangkok. Special events were also organized in several countries to celebrate the World Soil Day and the International Year of Soils.

More information about the EU activities in this context see: <http://ec.europa.eu/environment/soil>

## Mountain soils

Mountain regions have been a particular focus for the SAVE projects for many years. The conclusions of the book "Understanding Mountain Soils: A contribution from mountain areas to the International Year of Soils 2015" published by FAO (download: [www.fao.org/3/a-i4704e.pdf](http://www.fao.org/3/a-i4704e.pdf)) show how important mountain soils are for the whole world: "The benefits of healthy mountain soils go beyond mountain regions and contribute to the well-being of the world at large. Yet mountain soils are prone to rapid degradation, due to their shallowness, the steepness of mountain slopes and unsustainable soil management practices. This process is accelerated by global— including climate — changes, which in turn affect mountain peoples, their livelihoods and food security."

# The Bodies of SAVE Foundation

---

## The SAVE Board of Directors

Boink Geert Dr. Udenhout, The Netherlands

**Chairman (2013-2015)**

**Executive Vice Chairman**

Grunenfelder Hape MSc, St.Gallen, Switzerland

**Second Vice Chairman**

Van den Bergh Staf, Holsbeek, Belgium

**Secretary**

Boink Geert Dr. Udenhout, The Netherlands

**Assessors**

Fortina,Riccardo Prof.Dr., Torino, Italy

Beco Pavel, Dicken, Switzerland

Bizelis Iosif, Prof.Dr., Athens, Greece

Broxham, Elli, Oberbüren, Switzerland

Feldmann Antje, Ellingerode, Germany

Hajas Pal Dr., Ecseg, Hungary

Gaspardy Andras Dr., Budapest, Hungary

Ivanov, Sergej Dr., Dimitrovgrad, Serbia

Kompan Drago Prof.Dr., Domzale, Slovenia

Stadelmann Markus, Dornbirn, Austria

## The SAVE managing Staff

Arnold, Martin, Executive Director Project Office

Kugler, Waltraud MSc, Project Director, St. Gallen

Meijering, Albert, Network Office, Wageningen

Remijn, Nonja, Network Office Wageningen

Bootsma, Obe, Network Office, Wageningen

# The SAVE Partner Organisations

---

## Regional

DAGENE (Danubian Region), Istvan utca 2, H-1078 Budapest; E-mail: [gaspardy.andras@aotk.szie.hu](mailto:gaspardy.andras@aotk.szie.hu)

## National

- Albania: Prof.Dr. Kristaq Kume, chairman Rr. "Abdyl Frasher" Pall. 3/3 sh. 1, Ap. 5AL-Tirana: [kkume@icc-al.org](mailto:kkume@icc-al.org)
- Austria: Arche Austria, Florian Schipflinger, Oberwindau 67, A-6363 Westendorf; [office@arche-austria.at](mailto:office@arche-austria.at)
- Belgium: SLE-FPV, Rotselaarsebaan 45, B-3220 Holsbeek; E-mail: [staf.vandenbergh@sle.be](mailto:staf.vandenbergh@sle.be)
- Bulgaria: Semperviva (Sedefchev) T.Livadi bl.51,ap.90, BG-2300 Pernik; [bbps.semperviva@gmail.com](mailto:bbps.semperviva@gmail.com)
- Czech Rep. GenoClub, Bartolomejské 47, CZ-698 01 Veseli nad Moravou; [genoklub@seznam.cz](mailto:genoklub@seznam.cz)
- Denmark ODLB, Lilli Jensen, Hjortekaerbakken 30, DK-2800 Kgs. Lyngby; [kolillijensen@gmail.com](mailto:kolillijensen@gmail.com)
- Germany: GEH, Postfach 1218, D-37213 Witzhausen; E-mail: [info@g-e-h.de](mailto:info@g-e-h.de)  
VEN, Susanne Gura, Uhlandstr. 57, D-45468 Mülheim; [geschaefsstelle@nutzpflanzenvielfalt.de](mailto:geschaefsstelle@nutzpflanzenvielfalt.de)  
VERN, Burgstrasse 20, D-16278 Angermünde-Greifffenberg; E-mail: [vern\\_ev@freenet.de](mailto:vern_ev@freenet.de)
- Greece: Aegilops, C. Koutis, Ano Lehonia, GR-373 00 Agria Volou; E-mail: [info@aegilops.gr](mailto:info@aegilops.gr)  
Amalthia, Nikos Kostaras, GR-15669 Papagou-Athens; [amalthia.zoagr@gmail.com](mailto:amalthia.zoagr@gmail.com)
- Hungary: Közalapítvány-hálóza; Pro Vertes Közalapítvány; H-8083 Csákvár; E-mail: [provertes@provertes.hu](mailto:provertes@provertes.hu)
- Ireland: ISSA, Stor Siolta, Capparoo, Scariff, Co. Clare; E-mail: [info@irishseedsavers.ie](mailto:info@irishseedsavers.ie)
- Italy: RARE, Via Nemo Sottili 1, I-42123 Reggio Emilia RE; E-mail: [info@associazionerare.it](mailto:info@associazionerare.it)  
Sortengarten Suedtirol, Penegalstrasse 21/A, I-39100 Bolzano; [info@sortengarten-suedtirol.it](mailto:info@sortengarten-suedtirol.it)
- Netherlands: SZH (Zeldz. Huisdierrassen), Runderweg 6, NL-8219 PK Lelystad; E-mail: [szh@planet.nl](mailto:szh@planet.nl)  
De Oerakker, Bos en Hovenstraat 5, NL-2012 LS Haarlem; E-mail: [deoerakker@gmail.com](mailto:deoerakker@gmail.com)
- Serbia: BOBS, Sveti Sava Street 19, RS-22000 Sremska Mitrovica, E-mail: [zasavica@zasavica.org.rs](mailto:zasavica@zasavica.org.rs)  
Natura Balkanika, Ive Andrica 60, RS-18320 Dimitrovgrad; E-mail: [naturabalkan@sezampro.rs](mailto:naturabalkan@sezampro.rs)
- Switzerland: ProSpecieRara, Unter Brüglingen 6, CH-4052 Basel; E-mail: [info@prospecierara.ch](mailto:info@prospecierara.ch)
- Ukraine : SATrans, Michel Jacobi, vul. Drushba, UA-90451 Steblivka; [jacobi.michel@gmail.com](mailto:jacobi.michel@gmail.com)

# References

---

## **Collaboration with international organisations:**

- Irene Hoffmann, Chief Animal Genetic Resources, UN-FAO, Rome
- Bioversity International, Maccaresse-Rome
- GEF (Global Environment Facility) United Nations Development Programme
- IUCN (the International Union for Conservation of Nature), Gland
- EuroNatur, Radolfzell
- ERF (European Regional Focal Point), Bonn
- Rare Breeds International, Thessaloniki
- EU – DG Agriculture, Brussels

## **International Patronage Committee**

- Dr. Franz Fischler, former EU Commissioner for Agriculture, Absam (A)
- Dr. Dagmar Schratter, Director Vienna Zoo Schönbrunn, Vienna
- Marleen Felius, Artist and scientific animal illustrator, Amsterdam

## **Patronage Committee Switzerland**

- Aeschbacher Kurt      TV Moderator, Zurich
- Bötsch Manfred      former Director Federal Office for Agriculture, Bern
- Gysling Erich      Publicist, President Forum East-West, Zürich
- Semadeni Silva      President Pro Natura Switzerland, Chur-Araschgen

## **Long-term project funding (excerpt)**

- Margarethe und Rudolf Gsell-Stiftung, c/o Dr. Nicolas Roulet; Rebgasse 1; CH-4005 Basel
- MAVA – Fondation pour la Protection de la Nature, Rue Mauverney 28; CH-1196 Gland
- Graf Fabrice von Gundlach & Payne Smith-Stiftung; Andrea Engi; Zedernweg 1; CH-7000 Chur
- Lotteriefonds St.Gallen; CH-9001 St.Gallen
- Dr. Peter Goop (several foundations), Heiligkreuzstr. 19, FL-9490 Vaduz
- Dr. Mario Broggi (several foundations); Im Bretscha 22; FL-9494 Schaan
- Heidehof Stiftung GmbH; Heidehofstr. 35 A; D-70184 Stuttgart
- Grovni Foundation, Schneebergstrasse 17, CH-9000 St. Gallen