



European Farm Animal Biodiversity Information System

Conservarea biodiversitatii animalelor de ferma si realizarea unor colectii de ADN

*CENTRUL DE STUDII ȘI CERCETĂRI DE BIODIVERSITATE AGROSILVICĂ
"Acad. David Davidescu"*



The targets of the Biodiversity Center is the durable exploitation of animal genetic resources, the conservation of animal genetic biodiversity, the realization of a biotechnological bank of Animal Genetic Resources (AGR) of preserving the genetic background of farm animals by applying modern reproductive biotechnologies. We will pursue the realization of two objectives: analysis objectives, description of animal genetic resources, which group the rules for investigation and surveillance, a genetic evaluation of rare characters and experimental objectives, of conservation of the animal genetic resources by applying reproduction biotechnologies and using the methodology specific to obtaining, handling and freezing the sperm; obtaining, cultivating and freezing eggs and embryos.

The international project of CSCBA- „Acad. David Davidescu”- *Common Central European Farm Animal Biodiversity Database and DNA collection* it's financed of National Plan for Research-Development and Inovation – Capacity Programs, modul III and Grant for Romanian Academy.



- The EFABIS project treats countries as the smallest unit, supporting aggregation at a regional level like the European database with the final aggregation at the worldwide global level at FAO.
- To this effect, FABISnet consists of a network of countries databases together with regional (EAAP) and global databases.
- Multiple databases can automatically exchange their data and thereby synchronize the contents. All databases are accessible through the Internet using a standard Web browser. This covers data updates for authorized users as well as browsing for anonymous users.



EFABIS

- News
- About
- Network
- Breeds
- Library
- Help/FAQ

Language of:

Interface: English

Content: English

Log in

Username:

Password:

- Webmaster
- Contact
- Disclaimer

Breed names

Most common name	Mangalica
Language	hun.
Transboundary or brand name	Mangalitsa

Breed local names

Other name	Language
Hungarian Mangalitsa	eng.

Images

	<p>Year: 1909</p> <p>Gender: male</p> <p>Photo credit: Prof Hans Hinrich Sambraus; address: Waldtruderingerstrasse 17A; 81827 Muenchen; Germany; email: h.h.sambraus@t-online.de; phone: 4304506</p> <p>Locality:</p>
	<p>Year: 1989</p> <p>Gender: unknown</p> <p>Photo credit: Prof Hans Hinrich Sambraus; address: Waldtruderingerstrasse 17A; 81827 Muenchen; Germany; email: h.h.sambraus@t-online.de; phone: 4304506</p> <p>Locality:</p>
	<p>Year: 2005</p> <p>Gender: mixed</p> <p>Photo credit: Mr Tamás Szobolevski; Department for Agriculture; Ministry of Agriculture and Rural Development; address: Kossuth L. tér 11; 1055 Budapest; Hungary; email: SzobolevskiT@posta.fm.hu; phone: 30144 72</p> <p>Locality:</p>
	<p>Year: 2005</p> <p>Gender: mixed</p> <p>Photo credit: Mr Tamás Szobolevski; Department for Agriculture; Ministry of Agriculture and Rural Development; address: Kossuth L. tér 11; 1055 Budapest; Hungary; email: SzobolevskiT@posta.fm.hu; phone: 30144 72</p> <p>Locality:</p>



United Kingdom

Iceland

Netherlands

Poland

Slovakia

Estonia

Austria

Switzerland

Italy

Slovenia

Cyprus

Georgia



EFABIS

News

About

Network

Broods

Library

Help/FAQ

Language: all

EFABIS: English

Country: England

Get languages

Log in

Username

Password

Log in

Search

Order

Database

EFABIS

Recent EFABIS News

The European part of FABISnet

EFABIS in Iceland

The National farm animal biodiversity database of Iceland was set up in 2007. The *Landmannafélag Íslands* (LFI) website, the website is available in two languages - English and Icelandic and can be accessed at <http://efab.is/landinn>.

2007-11-28

EFABIS in Estonia

Another national information system part of the EFABIS network was established in November in Estonia. The web page in Estonian and English can be accessed via <http://efab.is/estonia>.

2007-11-28

Cyprus joined FABISnet

Latest updates

2007-10-05
[Sveðka vinnu\(ET\)](#)

2007-10-05
[Ísriks þrenndu\(ET\)](#)

2007-06-05
[Íslandsmjölku þrenndu\(ET\)](#)

2007-04-08
The European part of FABISnet

2007-04-08
EFABIS in Ireland

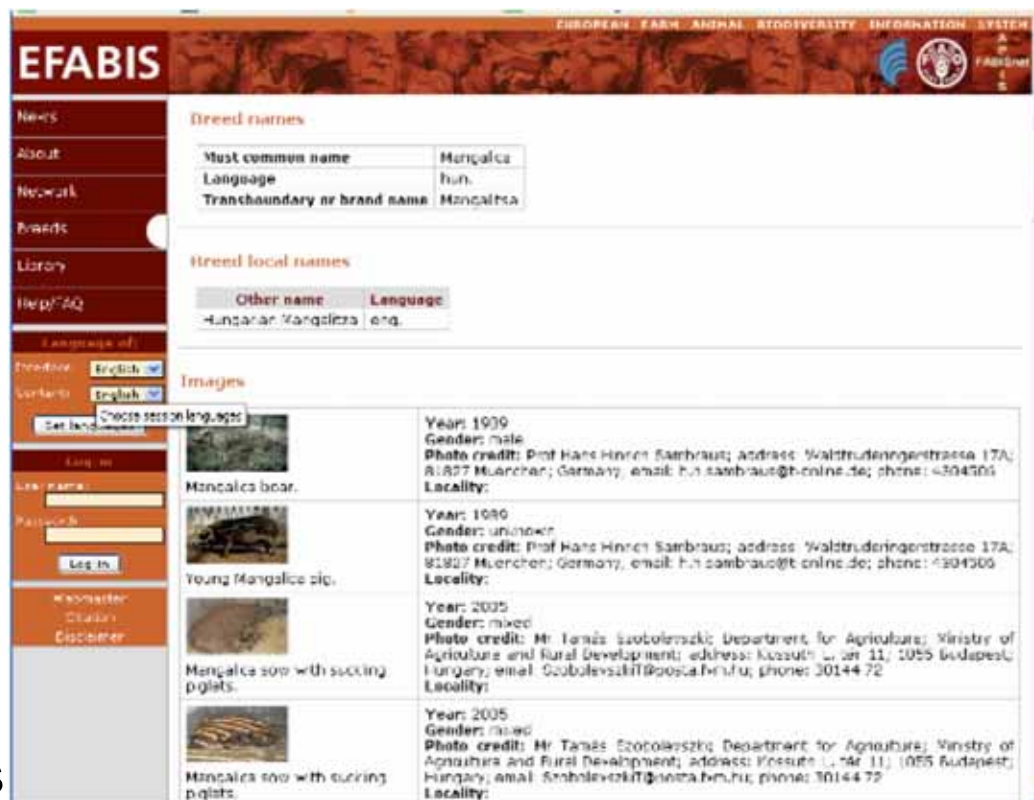
2007-11-28
EFABIS in Estonia

Breeds sorted by:

- species
- status
- country
- continent

Description:

- local name
- origin
- uses
- external characteristics
- morphology
- performance
- population data (in the given country)
- in Vivo programmes
- cryo Programmes



The screenshot displays the EFABIS website interface. The main content area shows details for the Mangalica breed, including breed names, local names, and a gallery of images with associated metadata.





Breed names

Most common name	Mangalica
Language	hun.
Transboundary or brand name	Mangalica

Breed local names

Other name	Language
-Hungarian: Mangalica	eng.

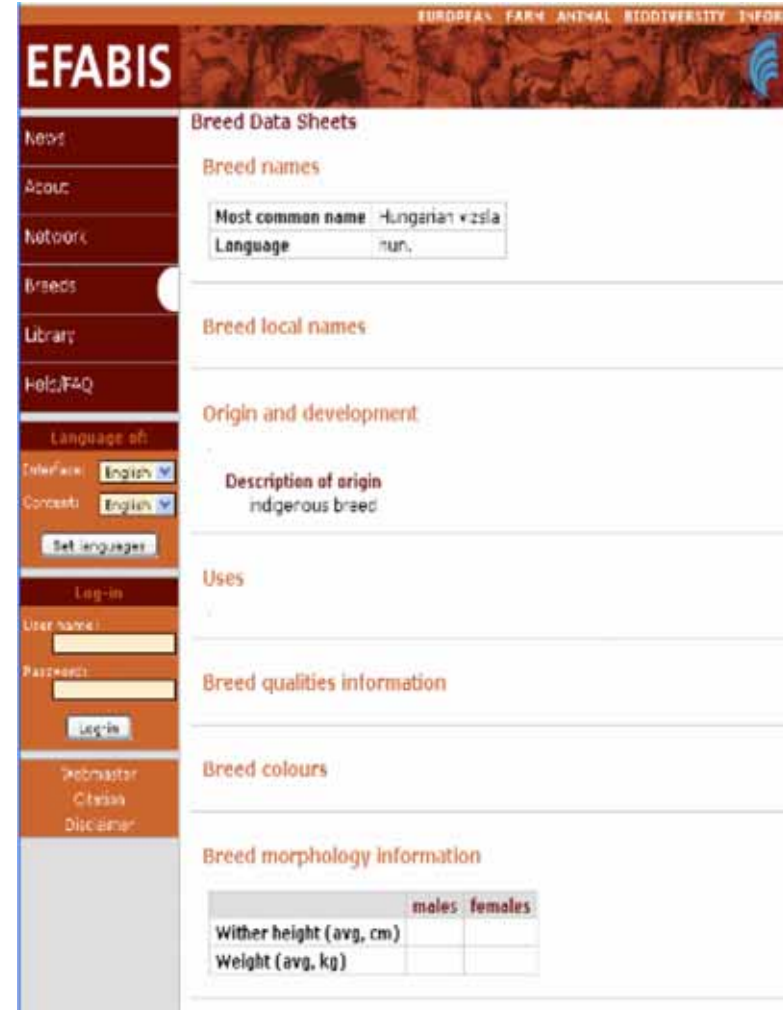
Images

	Year: 1939 Gender: male Photo credit: Prof Hans-Hinrich Sarbraut; address: Waldtruderingerstrasse 17A, 81827 Muenchen; Germany; email: h.s.sarbraut@t-online.de; phone: +304505
	Year: 1986 Gender: unknown Photo credit: Prof Hans-Hinrich Sarbraut; address: Waldtruderingerstrasse 17A, 81827 Muenchen; Germany; email: h.s.sarbraut@t-online.de; phone: +304505
	Year: 2005 Gender: mixed Photo credit: Mr. Tamás Szabolcski; Department for Agriculture; Ministry of Agriculture and Rural Development; address: Kossuth L. utca 11, 1055 Budapest; Hungary; email: SzabolcskiT@posta.t-online.hu; phone: 30144 72
	Year: 2005 Gender: mixed Photo credit: Mr. Tamás Szabolcski; Department for Agriculture; Ministry of Agriculture and Rural Development; address: Kossuth L. utca 11, 1055 Budapest; Hungary; email: SzabolcskiT@posta.t-online.hu; phone: 30144 72



The goal is to be fulfilled with current and valid data and photos, and more...

- Current and valid informations from Breeding Associations – **Partnership!**
- Photos with pedigree information
- DNA samples for Research DNA Repository



The screenshot shows the EFABIS website interface. The main content area displays a 'Breed Data Sheet' for the 'Hungarian vizsla' breed. The interface includes a navigation menu on the left with options like 'Home', 'About', 'Network', 'Breeds', 'Library', 'Help/FAQ', 'Log-in', 'Webmaster', 'Contact', and 'Disclaimer'. The main content area is divided into several sections: 'Breed names' (with a table for 'Most common name' and 'Language'), 'Breed local names', 'Origin and development' (with a 'Description of origin' field), 'Uses', 'Breed qualities information', 'Breed colours', and 'Breed morphology information' (with a table for 'Wither height (avg, cm)' and 'Weight (avg, kg)' for males and females).

	males	females
Wither height (avg, cm)		
Weight (avg, kg)		



Common bilateral Romanian-Hungarian project

- common know-how of sampling (geno and phenotype together at the same time)
- IT infrastructure
- connecting open e-Learning database
- WEB 2.0 applications – WIKI system

Case study: Romanian Grey Cattle

Phenotype

photos

body measurements

breed history



Case study: Romanian Grey Cattle

Phenotype

photos
body measurements
breed history



Genotype

sampling
mitochondrial study
genetic diversity
DNA tests

DNA repository



**Sample collection with the TypiFix[®] System
for Scrapie-genotyping of sheep**

**Sample collection
of small tissue probes with the TypiFix[®] system**

Sample acquisition

**error-free sample processing in the lab by automatic
acquisition of the sample ID and transcription into the
data base**

Purification of nucleic acids more than 5 x faster

DNA purification with dnaFIX columns

an extremely simplified and shortened one-step

**high-throughput separation procedure of genomic DNA from TypiFix[®] samples. The
sorbents retain protein and other contaminants, while the DNA passes the column in the
exclusion volume**

Reproducible DNA yield and quality

**Gel electrophoresis of dnaFix purified DNA from 88 TypiFix[®] samples 5 µl (total elution
volume: 240 µL) of each sample were loaded on a 1% agarose/ EtBr gel. The DNA
concentration is about 5 ng/µl or greater, n = negative control**

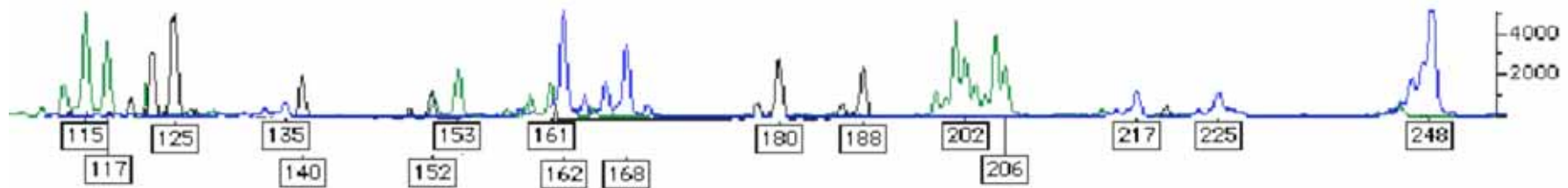
Molecular genetic analysis PCR

As codon- amino acid at codon 136, 154,
171 from 5 known haplotypes resulting PrP
Genotype.

Moleculargenetic analysis

PCR

Scrapie-Genotyping



1. The TypiFix™ ear tag system is simple, one-step collection and preservation of tissue samples
2. The TypiFix™ ear tag system is fast, fully-automated and economical preparation of DNA
3. This method is to be performed much more quickly and economically than is currently possible with the traditional methods of sample preparation.
4. The analysis performed with the panel of the 10 markers still able to give a correct result for all pigs and the identification the meat products it was 100%.
5. It was analysis the prion protein for scrapie resistance genotyping as *codon-* amino acid at codon 136, 154, 171 from 5 known haplotypes resulting PrP Genotype.
6. It was analysis the stress resistance and F 18 + E.coli resistance of pigs.
7. The results are favorable for use the genes assisted selection as instrument of the biodiversity and for selection the animals that are the positives characters.

Thank you for
your
attention!

