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Ad hoc action: Merino and Merino Derived breed in Europe.

GENETIC SURVEY

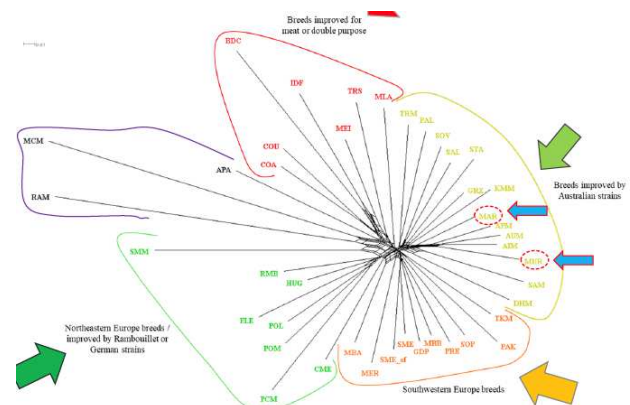
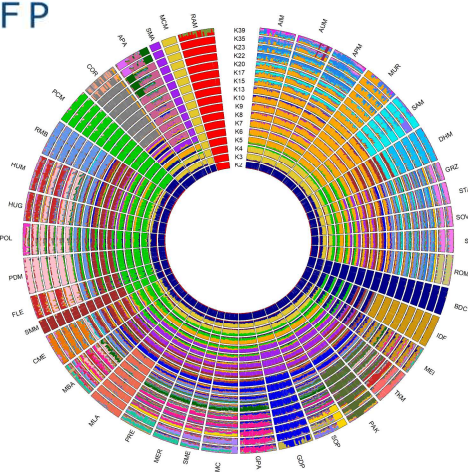
To investigate the genetic structure and relationships among Merino and Merino-derived breeds around the globe, relevant for the preservation, management and exploitation of the Merino genetic variability.

Special focus on European Merino and Merino-derived breeds.

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1) Genetic structure, relationship among breeds



4 genetics pool: South Europe, North and East Europe, Meat improved, Improved Australian
Rambouillet genetic drift
Spanish breed

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2) Selection signature in merino and merino-derived

➤ Same genetic background

➤ Different environmental and climatic condition

➤ Genetic exchange with native breeds

Are there any signals of genes potentially involved in environmental-related processes?

Are the Merino sheep ready to face the new challenges of this millennium?



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Results & Discussion

The identified four genomic regions located in OAR1, OAR6-1,-2, and OAR16 contained 254 genes

OAR1	OAR6-1	OAR6-2	OAR16
LEKR1, TIPARP, SSR3, KCNAB1, GMPS, LC33A1, C1H3orf33, PLCH1, MME, TRNAR-UCU	PDHA2, UNC5C, TRNAK-CUU, BMPR1B, DUMS, HPGDS, SMARCA1, ATOH1, GRID2, TRNAS-AGA, CCSE1, TRNAW-CCA, TRNAW-CCA, MMRN1, SNCA, GPRIN3, TIGD2, FAM13A, HERC3, NAP1L5, PYURF, PIGY, HERC5, HERC6, PPM1K, ASBG2, PKD2, SPP1, MEPE, IBSP, TRNAA-CGC, LAP3, MED28, FAM184B, NCAPG, DCAF16, LCORL, TRNASTOP-UCA, SLIT2, PACRGL, KCNIP4, TRNAS-GGA, TRNAW-CCA	PPARGC1A, DHX15, SOD3, CCDC149, LGI2, SEPSFCS, PI4K2B, ZCCHC4, ANAPCA, SLC34A2, SEL1L3, SMIM20, TRNAA-UGC, TRNAH-AUG, RBPI, CCKAR, TBC1D19, STIM2, TRNAL-UAA	EMB, HCN1, MRPS30, FGF10, NNT, PAIP1, C16H5orf34, C16H5orf28, CCL28, HMGCS1, NIM1K, ZNF131, SEPP1, CCDC152, GHR, BXO4, C16H5orf51, OXCT1, TRNAC-GCA, TRNAV-GUA, PLCXD3, C6, MROH28, C7, CARD6, RPL37, PRKAA1, TTC33, PTGER4, TRNAE-CUC, DAB2, C9, FVB, RICTOR

Morphologic and growth traits (*LEKR1, TIPARP, SSR3, KCNAB1, LCORL, GHR, PRKAA1, RICTOR*)

Hematological traits related with metabolism and immunity (*LEKR1, TIPARP, SSR3, GMPS, SLC33A1, PLCH1, MME*)

Identified loci potentially involved in the adaptation of merino to different environments

First clues to explain the extraordinary adaptation of merino to all the enviroments

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NETWORK



European Regional Focal Point
for Animal Genetic Resources

Ad hoc action
“Merino network”



**Merino
and Merino-derived
breeds in Europe**
state of the art - *in situ* valorization

Webinar
Monday 15th February 2021
13.50 (CET)
to be held on 

14.00 / 14.10
Welcome address
Coralie Dauchin
European Regional Focal Point / IDELE Paris / France

14.10 / 14.20
The ad hoc action on Merino and Merino-derived breeds
Fabio Pilla
University of Molise / Italy

FIRST SESSION
*The Merino and Merino-derived breeds in Europe:
history, demography, and genetics*
chair **Vincenzo Landi**
University of Bari / Italy

14.20 / 16.00
COUNTRY REPORTS

Antonio Granero
Asociación Nacional de Criadores de Ganado Merino / Spain

Juan Vincente Delgado
University of Córdoba / Spain

Tiago Perlorio
ANCORME / Portugal

Coralie Dauchin / Antoine Brimboeuf
IDELE Paris / Bretagne Nationale / France

Silvio Grande / Francesca Maria Sarti
ASSONAPA / Università degli Studi di Perugia / Italy

Christian Meadell
Bayerische Landesanstalt für Landwirtschaft / Germany

Aldona Kawecka
National Research Institute of Animal Production / Poland

László Sáfár
Hungarian Sheep and Goat Breeders Association / Hungary

Valentin Baltescu
University of Cluj-Napoca / Romania

16.00 / 16.20
SCIENTIFIC COOPERATION INITIATIVE

Simone Ceccobelli
Università Politecnica delle Marche / Italy

SECOND SESSION
What future for Merino and Merino-derived breeds? A wool perspective
chair **Elena Ciani**
University of Bari / Italy
co-chair **Marco Antonini**
ENEA / Italy

16.20 / 17.30

Ivan Aloisio
Portucale / Italy

Nigel Thompson
Hella The Wool Company / Italy

Paul Garcia de Oteyza
Oteyza / Spain

Jean-Louis Brun
Brun de Vian-Tiran / France

Lesley Prior
Tollentia / UK

Dalena White
International Wool Textile Organisation / Belgium

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Organizza

TRANSUMANDO CON LE CAPRE DI VALERIO

Dai pascoli tratturali del Gigante di Duronia ai pascoli di prato Monteforte di Capracotta

Giovedì 26 maggio 1^ Tappa:
Civita di Duronia, Civitanova del Sannio,
Torre della castagna, Arco di Pietrabbondante.
Km. 13,7

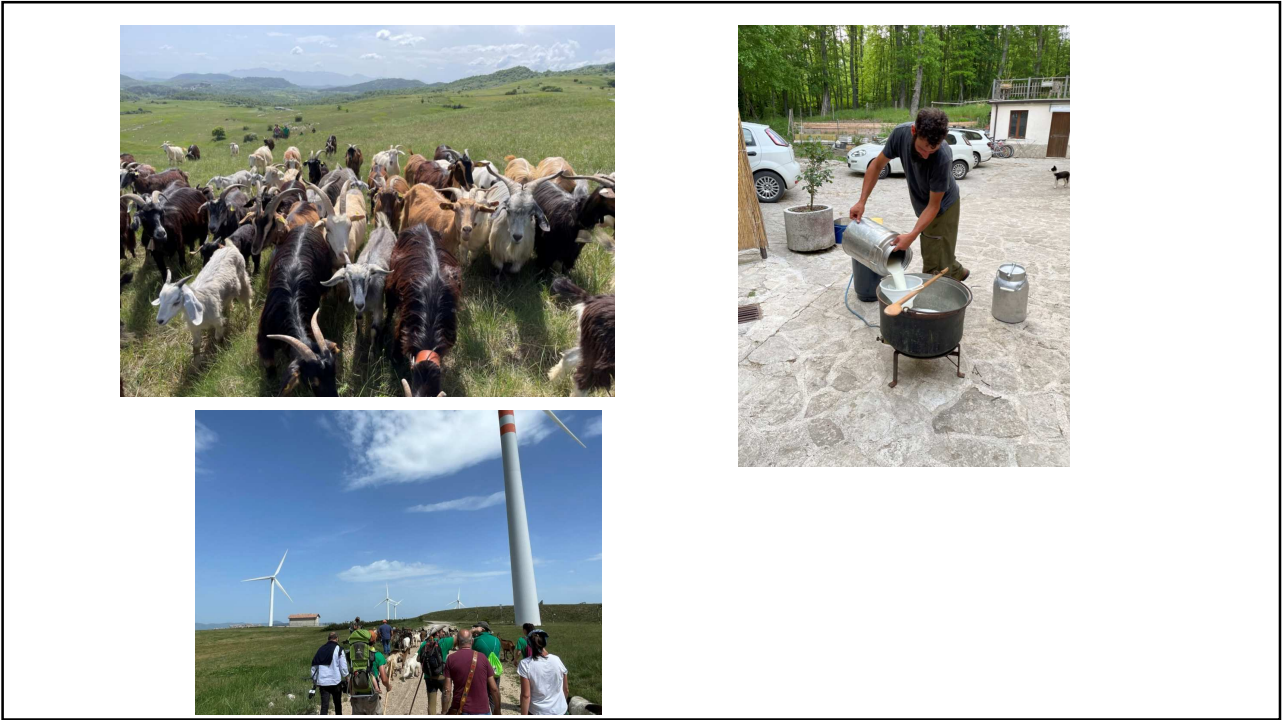
Venerdì 27 maggio 2^ Tappa:
Arco di Pietrabbondante, Sant'Andrea di Pietrabbondante,
Riserva di Collemeluccio, San Mauro di Vastogirardi.
Km. 8,9

Sabato 28 maggio 3^ Tappa:
San Mauro di Vastogirardi, Pianoro di Staffoli, Bosco Cerritelli,
Prato Lungo, Prato Monteforte di Capracotta.
Km 8,5

ANDATA:
da giovedì 26 maggio a sabato 28 maggio 2022

RITORNO:
da giovedì 22 settembre a sabato 24 settembre 2022

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