**Supplementary material**

*animal* Journal

Impact of conservation measures on demography and genetic variability of livestock breeds

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**Supplementary Table S1**

Completeness of pedigree (Equivalent Complete Generation) over the different periods for the breeds studied

Table S1.1 Cattle breeds

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years | Maraîchine | Cachena | Caldela | Frieiresa | Limia | Vianesa | Austrian brown cattle | Ennstal Pied cattle | Murboden |
| 1996-1999 | 3.6 | 1.9 | 2.0 | 1.8 | 1.9 | 1.8 | 6.1 | 4.7 | 5.0 |
| 2000-2003 | 4.0 | 2.2 | 2.4 | 2.0 | 2.3 | 2.1 | 6.6 | 3.8 | 4.7 |
| 2004-2007 | 4.8 | 2.7 | 2.9 | 2.6 | 2.7 | 2.3 | 7.0 | 3.8 | 4.3 |
| 2008-2011 | 5.6 | 3.3 | 3.6 | 3.2 | 3.2 | 2.8 | 7.4 | 4.2 | 4.4 |
| 2012-2015 | 6.3 | 3.9 | 4.1 | 3.8 | 3.6 | 3.3 | 7.7 | 4.8 | 4.9 |

Table S1.2 Small ruminant breeds

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Years | Ovella Galega | Avranchin | Cotentin | Roussin | Poitevine |
| 1996-1999 | / | 3.2 | 5.5 | 4.3 | 4.5 |
| 2000-2003 | 1.4 | 3.8 | 5.0 | 4.9 | 4.6 |
| 2004-2007 | 1.7 | 4.5 | 4.0 | 5.8 | 4.9 |
| 2008-2011 | 2.2 | 4.8 | 4.7 | 6.5 | 5.4 |
|  2012-2015 | 2.5 | 4.6 | 5.4 | 7.4 | 5.9 |

Table S1.3 Equid breeds

|  |  |  |  |
| --- | --- | --- | --- |
| Years | Baudet du Poitou | Poitevin mulassier | Nordland/Lyngen |
| 1996-1999 | 4.7 | 3.8 | 7.6 |
| 2000-2003 | 5.3 | 3.9 | 8.0 |
| 2004-2007 | 5.8 | 4.1 | 8.4 |
| 2008-2011 | 6.4 | 4.3 | 8.9 |
| 2012-2015 | 7.0 | 4.8 | 9.3 |

Roussin de la

Hague Sheep 

Poitevin Goat 

Ovella Galega

Sheep 

Maraîchine

Cattle 

Cachena

Cattle 

Austrian Brown

Cattle 

Murboden Cattle 

A

a

Avranchin Sheep 

Cotentin Sheep 

Caldela Cattle 

Frieiresa Cattle 

Limia Cattle 

Vianesa Cattle 

 Ennstal Pied

 Cattle 

Nordland/

Lyngen Horse 

Baudet du Poitou Donkey 

Poitevin

Mulassier Horse 

B

**Supplementary Figure S1.** **Changes in sex-ratio effective population size (Nes) over time for the 17 breeds studied from four different species (Small Ruminants, Equids and Cattle).**

Roussin de la

Hague Sheep 

Poitevin Goat 

Ovella Galega

Sheep 

Maraîchine

Cattle 

Cachena

Cattle 

Austrian Brown

Cattle 

Murboden Cattle 

A

Avranchin Sheep 

Cotentin Sheep 

Caldela Cattle 

Frieiresa Cattle 

Limia Cattle 

Vianesa Cattle 

 Ennstal Pied

 Cattle 

Nordland/

Lyngen Horse 

Baudet du Poitou Donkey 

Poitevin

Mulassier Horse 

B

**Supplementary Figure S2.** **Changes in progeny variance effective population size (Nev) over time for the 17 breeds studied from four different species (Small Ruminants, Equids and Cattle).**

Roussin de la

Hague Sheep 

Poitevin Goat 

Ovella Galega

Sheep 

Maraîchine

Cattle 

Cachena

Cattle 

Austrian Brown

Cattle 

Murboden Cattle 

A

Avranchin Sheep 

Cotentin Sheep 

Caldela Cattle 

Frieiresa Cattle 

Limia Cattle 

Vianesa Cattle 

 Ennstal Pied

 Cattle 

Nordland/

Lyngen Horse 

Baudet du Poitou Donkey 

Poitevin

Mulassier Horse 

B

**Supplementary Figure S3.** **Changes in coancestry rate effective population size (Nec) over time for the 17 breeds studied from four different species (Small Ruminants, Equids and Cattle).**

Roussin de la

Hague Sheep 

Poitevin Goat 

Ovella Galega

Sheep 

Maraîchine

Cattle 

Cachena

Cattle 

Austrian Brown

Cattle 

Murboden Cattle 

A

B

Avranchin Sheep 

Cotentin Sheep 

Caldela Cattle 

Frieiresa Cattle 

Limia Cattle 

Vianesa Cattle 

 Ennstal Pied

 Cattle 

Nordland/

Lyngen Horse 

Baudet du Poitou Donkey 

Poitevin

Mulassier Horse 

**Supplementary Figure S4.** **Changes in restricted coancestry rate effective population size (Ner4) over time for the 17 breeds studied from four different species (Small Ruminants, Equids and Cattle).**

**Supplementary references**

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