**Supplementary Materials**

A yellow and white grid

Description automatically generated with medium confidenceA yellow and orange grid

Description automatically generated with medium confidence

Figure S1b. Heatmap and dendrogram based on pairwise FST values among the active herds of Blonde Mangalica breed. The heatmap color key and histogram represents the FST matrix considering different discrete FST scales.

Figure S1a. Heatmap and dendrogram based on pairwise FST values among the herds of Blonde Mangalica breed. The heatmap color key and histogram represents the FST matrix considering different discrete FST scales.

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| A graph with numbers and a black and red line  Description automatically generated with medium confidence  Figure S2a. Multidimensional scaling (MDS) clusters (MDS1&MDS2) of the Blonde Mangalica | A black and white image of a cloud  Description automatically generated with medium confidence  Figure S2b. Multidimensional scaling (MDS) clusters (MDS1&MDS3) of the Blonde Mangalica |
| A graph with numbers and lines  Description automatically generated  Figure S2c. Multidimensional scaling (MDS) clusters (MDS1&MDS2) of active herds in the Blonde Mangalica | A graph with numbers and symbols  Description automatically generated with medium confidence  Figure S2d. Multidimensional scaling (MDS) clusterst (MDS1&MDS3) of active herds in the Blonde Mangalica |

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| A circular diagram of a dna  Description automatically generated with medium confidence  Figure S3a. Male migration intensity of the Blonde's total herds | A circular object with many colored lines  Description automatically generated  Figure S3b. Female migration intensity of the Blonde's total herds |
| A circular diagram with colorful lines  Description automatically generated  Figure S3c. Male migration intensity of the Blonde's active herds | A colorful circular diagram with many lines  Description automatically generated with medium confidence  Figure S3d. Female migration intensity of the Blonde's current active farms |

A screenshot of a graph

Description automatically generatedA yellow and orange grid

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Figure S4a. Heatmap and dendrogram based on pairwise FST values among the herds of Swallow-Belly Mangalica breed. The heatmap color key and histogram represents the FST matrix considering different discrete FST scales.

Figure S4b. Heatmap and dendrogram based on pairwise FST values among the active herds of Swallow-Belly Mangalica breed. The heatmap color key and histogram represents the FST matrix considering different discrete FST scales.

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| A screen shot of a graph  Description automatically generated  Figure S5a. Multidimensional scaling (MDS) clusters (MDS1&MDS2) of the Swallow\_Belly Mangalica | **A graph with numbers and dots  Description automatically generated**  Figure S5b. Multidimensional scaling (MDS) clusters (MDS1&MDS3) of the Swallow\_Belly Mangalica |
| A graph of a number of animals  Description automatically generated with medium confidence  Figure S5c. Multidimensional scaling (MDS) clusters (MDS1&MDS2) of active herds the Swallow\_Belly Mangalica | A graph of a diagram  Description automatically generated with medium confidence  Figure S5d. Multidimensional scaling (MDS) clusters (MDS1&MDS3) of active herds the Swallow\_Belly Mangalica |

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| A circular diagram with many colored lines  Description automatically generated  Figure S6a. Male migration intensity of the Swallow\_Belly's total herds | A circular diagram with many colored lines  Description automatically generated  Figure S6b. Female migration intensity of the Swallow\_Belly's total herds |
| A colorful circular diagram with many lines  Description automatically generated with medium confidence  Figure S6c. Male migration intensity of the Swallow\_Belly's active herds | A colorful diagram with numbers and lines  Description automatically generated  Figure S6d. Female migration intensity of the Swallow\_Belly's active herds |

A screenshot of a computer screen

Description automatically generatedA yellow and red grid with lines and dots

Description automatically generated with medium confidence

Figure S7b. Heatmap and dendrogram based on pairwise FST values among the active herds of Red Mangalica breed. The heatmap color key and histogram represents the FST matrix considering different discrete FST scales.

Figure S7a. Heatmap and dendrogram based on pairwise FST values among the herds of Red Mangalica breed. The heatmap color key and histogram represents the FST matrix considering different discrete FST scales.

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| A screen shot of a graph  Description automatically generated  Figure S8a. Multidimensional scaling (MDS) clusters (MDS1&MDS2) of the Red Mangalica | A screen shot of a graph  Description automatically generated  Figure S8b. Multidimensional scaling (MDS) clusters (MDS1&MDS3) of the Red Mangalica |
| A graph with numbers and symbols  Description automatically generated  Figure S8c. Multidimensional scaling (MDS) clusters (MDS1&MDS2) of active herds in the Red Mangalica | A graph with numbers and lines  Description automatically generated  Figure S8d. Multidimensional scaling (MDS) clusters (MDS1&MDS3) of active herds in the Red Mangalica |

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| A circular diagram with colorful lines  Description automatically generated  Figure S9a. Male migration intensity among the Red's total herds | A circular diagram with many colored lines  Description automatically generated  Figure S9b. Female migration intensity among the Red's total herds |
| A colorful circle with lines and numbers  Description automatically generated  Figure S9c. Male migration intensity among the Red's active herds | A circular diagram with colorful lines  Description automatically generated  Figure S9d. Female migration intensity of the Red's active herds |